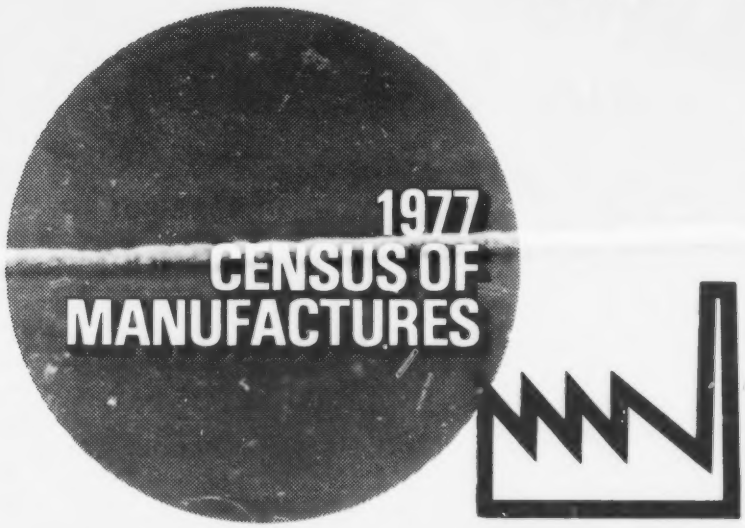
MC77-SR-4 (Part 1) (Revised)

Issued September 1980



Subject Series

Fuels and Electric Energy Consumed

Part 1. Industry Groups and Industries (Revised)

U.S. Department of Commerce
Philip M. Klutznick, Secretary
Luther H. Hodges, Jr.,
Deputy Secretary
Courtenay M. Slater,
Chief Economist

BUREAU OF THE CENSUS
Vincent P. Barabba,
Director

CONTENTS

Fiche/Frame

EXPLANATORY TEXT

Summary Data 1/A4
Industry Data 1/A11
Revisions to 1976 Coke and Breeze Data 1/A14
Conversion to British Thermal Units (BTU's) 1/A14
Fuels Excluded from Report 1/A14
1972 and 1977 Revisions to Standard Industrial Classification System. 1/A14
Census Disclosure Rules 1/A14

TABLES

1. Fuels and Electric Energy Used for Heat and Power: 1977 and Earlier Years. 1/B1
2. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power: 1977 and Selected Earlier Years. 1/B1
3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976. . . . . 1/B2
4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised 1/C6

APPENDIXES

A. Scope and Coverage 1/D2
B. Explanation of Terms. 1/D5
C. Report Form 1/D6

Publication Program. 1/D10

BUREAU OF THE CENSUS
Vincent P. Barabba, Director
Daniel B. Levine, Deputy Director
Shirley Kallek, Associate Director for Economic Fields
Richard B. Quanrud, Assistant Director for Economic and Agriculture Censuses

INDUSTRY DIVISION
Roger H. Bugenhagen, Chief

ACKNOWLEDGMENTS—Many persons participated in the various activities of the 1977 Census of Manufactures. Primary direction of the program was performed by **Shirley Kallek**, Associate Director for Economic Fields, and **Richard B. Quanrud**, Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Industry Division under the general direction of **Milton Eisen**, Chief (until February 1980), and **Roger H. Bugenhagen**, his successor, **John R. Wikoff**, Assistant Chief for Current Programs, and **Arthur W. Horowitz**, Assistant Chief for Census/ASM programs.

Under the direction of **John P. McNamee**, Chief, Minerals Branch, **Dennis L. Wagner**, assisted by **Robert E. Struble, Julianne Williams, David Stonfer, Julius Smith, Mark Vendemia, Kevin Tritle**, and **Eva Snapp**, was responsible for review of the data and preparation of the report.

Program responsibility was shared by the following individuals who participated importantly in the entire program: **Dale W. Gordon**, Census Durables; **Michael J. Zampogna**, Census Nondurables: **Ruth A. Runyan** (until May 1978), and **John P. Govoni**, her successor, Census Subject Reports; **Paul F. Berard**, Current Durables; **Robert J. Nealon**, Current Nondurables; and **John P. McNamee**, Minerals.

Edward A. Robinson made significant contributions to the basic economic concepts and content of the census. The mathematical techniques used in sampling the respondents were developed by **Donald F. Clark**, assisted by **Preston J. Waite, Gary L. Kusch**, and **Stacey Cole. Kenneth I. Hansen**, Chief of the Annual Survey of Manufactures Branch, assisted by **Robert Rosati** and **Stephen Raley**, was responsible for the annual survey component of the census of manufactures. Specifications for the complex computer edit were the responsibility of the staffs of the Statistical Methods and Annual Survey of Manufactures Branches. Computer programs were prepared under the direction of **Howard N. Hamilton** (until November 1978), and **William Norfolk**, his successor. **Alan Seto, David Onions**, and **Karen Smith** developed the computer editing and tabulation programs under the direction of **George D. Anderson.**

Preparing the report forms for printing and planning the flow of reports to publication were conducted by **Lillie Mae Skinner** and **Betty Pannell.**

Systems and procedures for mailout and clerical processing were developed in the Economic Surveys Division by **Roger H. Bugenhagen**, Chief, assisted by **Andrew L. Grieco, Robert E. Crowther**, and **Joel Richardson**. Clerical procedures were developed by **Robert Brand**, assisted by **Haydn R. Mearkle, Helen L. Barton**, and **Beverly M. Eng. Walter E. Neece**, assisted by **C. Harvey Monk**, had staff responsibility for industry classification procedures. Administrative record processing specifications were developed by **Lawrence A. Blum** and **John M. Sullivan** under the direction of **Samuel Schweid.** Electronic computer programs for check-in and administrative records were developed and supervised by **Robert G. Willner** and **Donald H. Danbury** under the direction of **Paul E. Poissant.** Data input procedures were developed by **Leonard M. Tauber** and quality control procedures by **Jean F. Biggs.**

Forms design was performed in the Administrative Services Division, **Henry J. Husmann**, Chief. The entire staff of the Forms and Mail Management Branch made significant contributions in the planning, design, review, and composition of the forms.

Within the Publications Services Division, many individuals made significant contributions in publication planning and design, editorial review, composition, and printing procurement. These operations were performed under the direction of **Raymond J. Koski**, Chief, assisted by **Milton S. Andersen, Gerald A. Mann, Wayne H. Massey, Helen M. Curtis, Jacqueline A. Gans, Charles C. Huntley, Nicholas Preftakes, Rosemary B. Vance**, and **Robert Warunek.**

Clerical and data keying operations were performed in the Data Preparation Division at Jeffersonville, Ind., under the direction of **Don L. Adams**, Chief, assisted by **Robert L. Allen, Rebecca Nesbit**, and **George Wilson.** The clerical geocoding effort was directed by **Wendell McManus.**

Computer processing was directed by **C. Thomas DiNenna**, Chief, Computer Services Division, **John E. Halterman, Jesse J. Verdeja, Willie E. Clark**, and **Norman W. Larsen** provided staff assistance.

Lawrence Cox, Statistical Research Division, and **Lawrence E. Comish**, System Software Division, made significant contributions by developing special-purpose computer programs for disclosure analysis and publication preparation.

Donald E. Young, Lawrence H. Lyons, and **Robert S. Taylor**, of the Office of the Assistant Director for Economic and Agriculture Censuses, participated in overall planning and review of the census operations.

Special acknowledgment is also due the many businesses whose cooperation has contributed to the publication of these data.

A substantial credit is due the U.S. Department of Energy, for without its monetary support this extensive survey would not have been possible.

Library of Congress Cataloging in Publication Data

United States. Bureau of the Census.
1977 census of manufactures.

CONTENTS: [1] Geographic statistics. [2] Industry reports. [3] Special reports.
1. United States—Manufactures—Statistics. I. Title. II. Title: Census of manufactures.
HD9724.U52 1977a 338.4'7'670973 78-606074

For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by draft on a U.S. bank.

EXPLANATORY TEXT

SUMMARY DATA

In 1977 the U.S. consumption of purchased fuels and electric energy for heat and power by manufacturing establishments totaled 12.9 quadrillion British thermal units (Btu's). This represented a 1 percent increase over the 1976 consumption figure of 12.8 quadrillion Btu's, which was considerably lower than the 6.2 percent increase in the Federal Reserve Board's (FRB) index of manufacturing production for that period. From these statistics it appears that proportionately less energy is being consumed in the production of manufactured goods. Apparently, fuel shortages and resulting efforts to save energy have changed the historic correlation between levels of production and energy consumption.

Expenditures during 1977 by manufacturers for fuels and electric energy amounted to $33.4 billion, an increase of 19 percent over the 1976 total of $28.1 billion (chart 1). Manufacturers' expenditures in 1977 for natural gas totaled $8.9 billion, an 18 percent increase over the 1976 level of $7.5 billion. Purchased electric energy costs increased 19 percent from $12.2 billion in 1976 to $14.5 billion in 1977, while those for fuel oil increased 23 percent to a 1977 level of $4.9 billion. Expenditures for coal increased by 11 percent between 1976 and 1977 to $1.5 billion, while for coke and breeze they increased 22 percent from the revised 1976 figure of $1.4 billion to $1.8 billion in 1977 (chart 2). All dollar figures in this report are in current dollars and therefore are not adjusted for changes in price levels.

While overall energy consumption between 1976 and 1977 showed only a modest increase, some variations in the mix of the fuel types and electric energy occured (chart 3). Increases in consumption were recorded for each of the major fuels and purchased electric energy except natural gas. Consumption of gas declined 5 percent from the 1976 level. This decrease caused the proportion of total natural gas consumed to slide to 46 percent of all manufacturing energy usage during 1977. Although natural gas remains the dominant fuel used by manufacturers, its percent of total energy usage has dropped significantly from the 1971 level of 56 percent. This shows the increasing switch from natural gas to the other major fuels and electric energy, particularly to residual fuel oil (table A and chart 4).

The average cost per million Btu's of energy consumed in 1977 was $2.58, a 17 percent increase over the 1976 average cost. This increase, more than the 14 percent increase between 1975 and 1976, was considerably lower than the average annual increase of 25 percent between 1971 and 1975. The increased average cost per million Btu's resulted primarily from an increased unit cost of natural gas, which rose to $1.55 per million Btu's. This was a 24 percent jump over the 1976 average cost of $1.26 per million Btu's. Lesser increases in average unit cost were registered by each of the other major fuels and electric energy. Again in 1977, coal remained the lowest cost fuel (on a Btu-per-dollar basis) of any of the major fuels covered in this report (table B and chart 5). Chart 6 illustrates the sharp increase in unit costs of selected fuels and electric energy consumed by all manufacturing industries during 1967-1977.

Although purchased electric energy accounted for 17 percent of the total energy consumed by manufacturers, it accounted for 43 percent of total energy expenditures. While natural gas accounted for 46 percent of total energy used (chart 4), it accounted for only 27 percent of total expenditures, making it a considerably lower priced source of energy than electricity in terms of Btu's. This Btu computation assumes perfect conversion of various fuels into energy, which in practice does not occur. Thus, a decrease in fuel consumption with a corresponding increase in purchased electric energy will result in a lower Btu figure to the extent that conversion losses are shifted to a public utility.

Table A. Percent of Total Energy Consumed by All Manufacturing Industries for Selected Fuels and Purchased Electric Energy: 1967, 1971, and 1974-1977

(Data for fuels not specified by kind were distributed among detailed fuels)

Fuels and electric energy	1977	1976	1975	1974	1971	1967
Total	100	100	100	100	100	100
Residual fuel oil	12	12	10	9	7	7
Bituminous coal, lignite, and anthracite	11	10	10	10	13	19
Coke and breeze	4	4	3	3	3	3
Distillate fuel oil	5	4	5	5	5	4
Natural gas	46	49	52	54	56	53
Purchased electric energy	17	17	17	15	13	12
Other fuels	4	4	4	3	2	1

Note: Detail may not add to 100 because of independent rounding.

Table B. Unit Cost and Index of Change of Selected Fuels and Purchased Electric Energy Consumed by All Manufacturing Industries: 1967, 1971, and 1974-1977

Year	Total purchased fuels and electric energy	Natural gas	Bituminous coal, lignite, and Anthracite	Residual fuel oil	Distillate fuel oil	Coke and breeze	Purchased Electric energy
	UNIT COST (DOLLARS PER MILLION BTU)						
1977	2.58	1.55	1.13	2.14	2.70	3.37	6.41
1976	2.20	1.26	1.07	1.88	2.38	2.98	5.58
1975	1.93	.95	1.12	1.93	2.24	2.58	5.06
1974	1.44	.64	.86	1.83	2.04	1.87	4.02
1971	.80	.38	.41	.61	.74	.89	2.89
1967	.65	.32	.28	.42	.62	.71	2.55
	INDEX OF CHANGE (1971=100)						
1977	321	405	276	354	363	379	222
1976	275	328	262	310	321	335	193
1975	240	247	273	318	304	290	175
1974	179	167	210	301	275	211	139
1971	100	100	100	100	100	100	100
1967	81	83	68	69	84	80	88

CHART 1.

Purchased Fuels and Electric Energy Quantity Consumed, Expenditures, and Unit Cost: 1967,1971 and 1974–1977

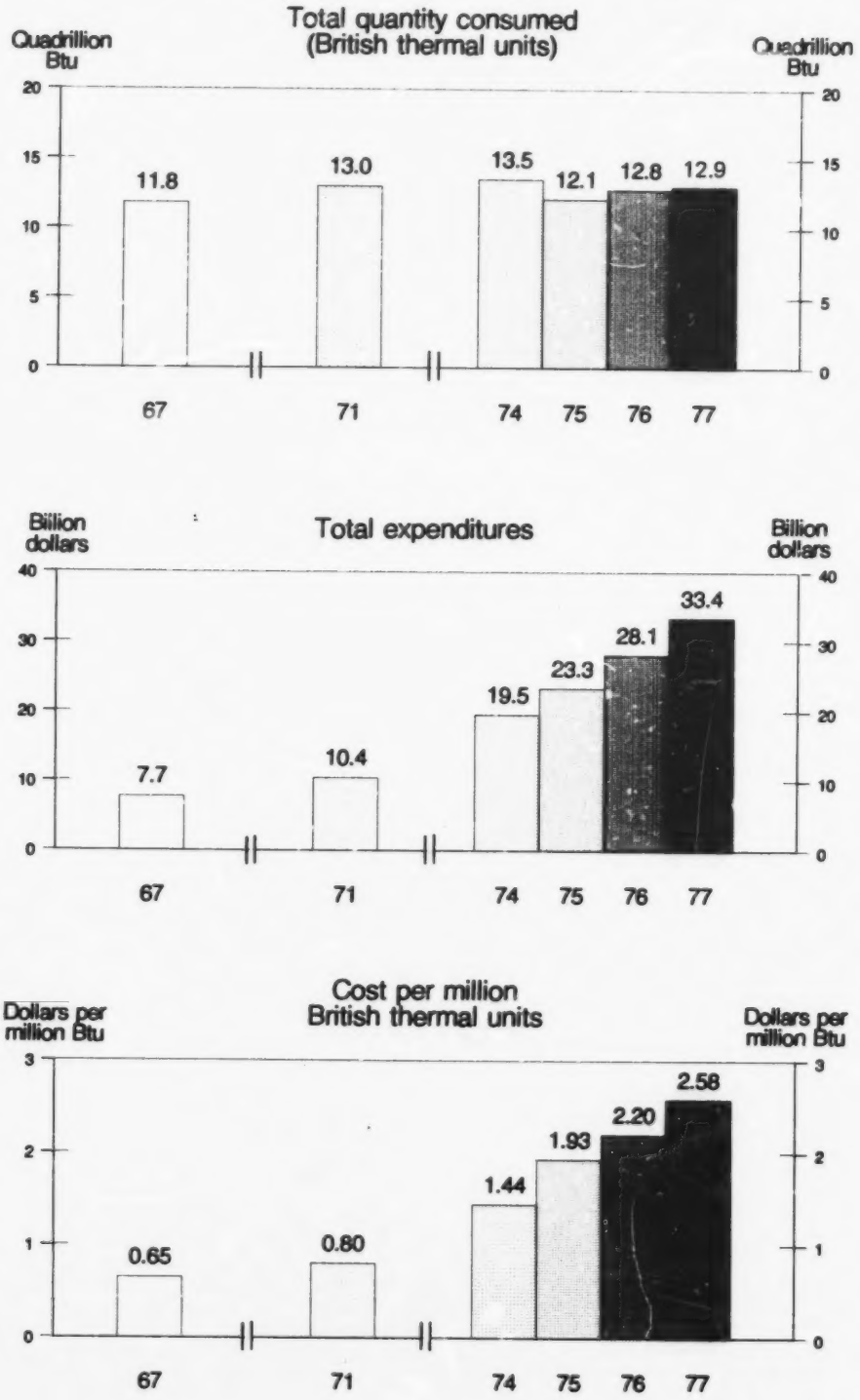


CHART 2.

Expenditures for Selected Fuels and Purchased Electric Energy Consumed by All Manufacturing Industries: 1967, 1971 and 1974–1977

(Excludes expenditures for Other Fuels and Fuels Not Specified by Kind, which for 1977 amounted to 3.2 and 2.3 percent of all fuel and electric energy expenditures by all manufacturing industries)

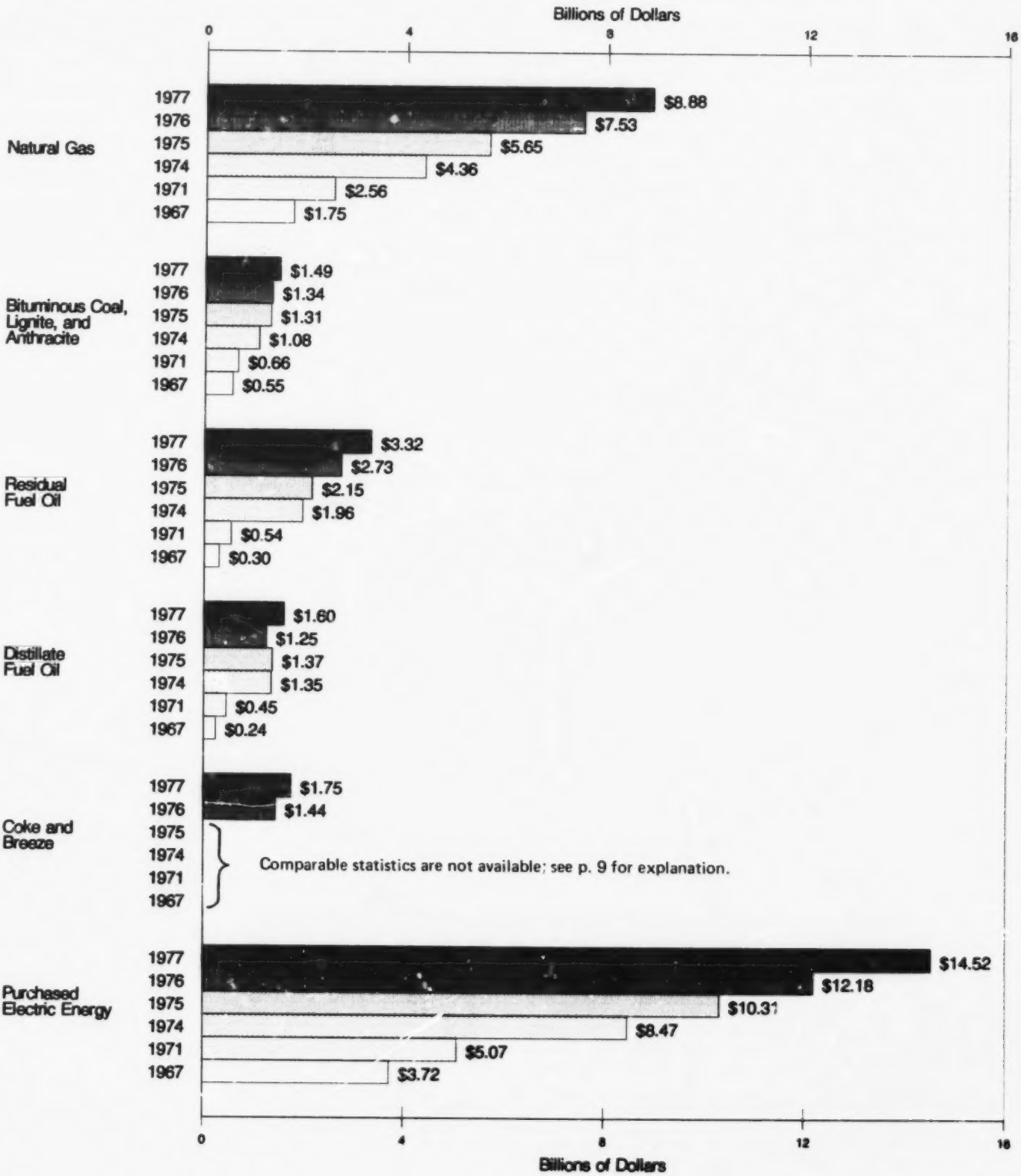


CHART 3.

Quantity of Selected Fuels and Purchased Electric Energy Consumed by All Manufacturing Industries: 1967, 1971 and 1974–1977

(Excludes consumption for Other Fuels and Fuels Not Specified by Kind, which for 1977 amounted to 4.8 and 4.4 percent of all fuel and electric energy consumption by all manufacturing industries)

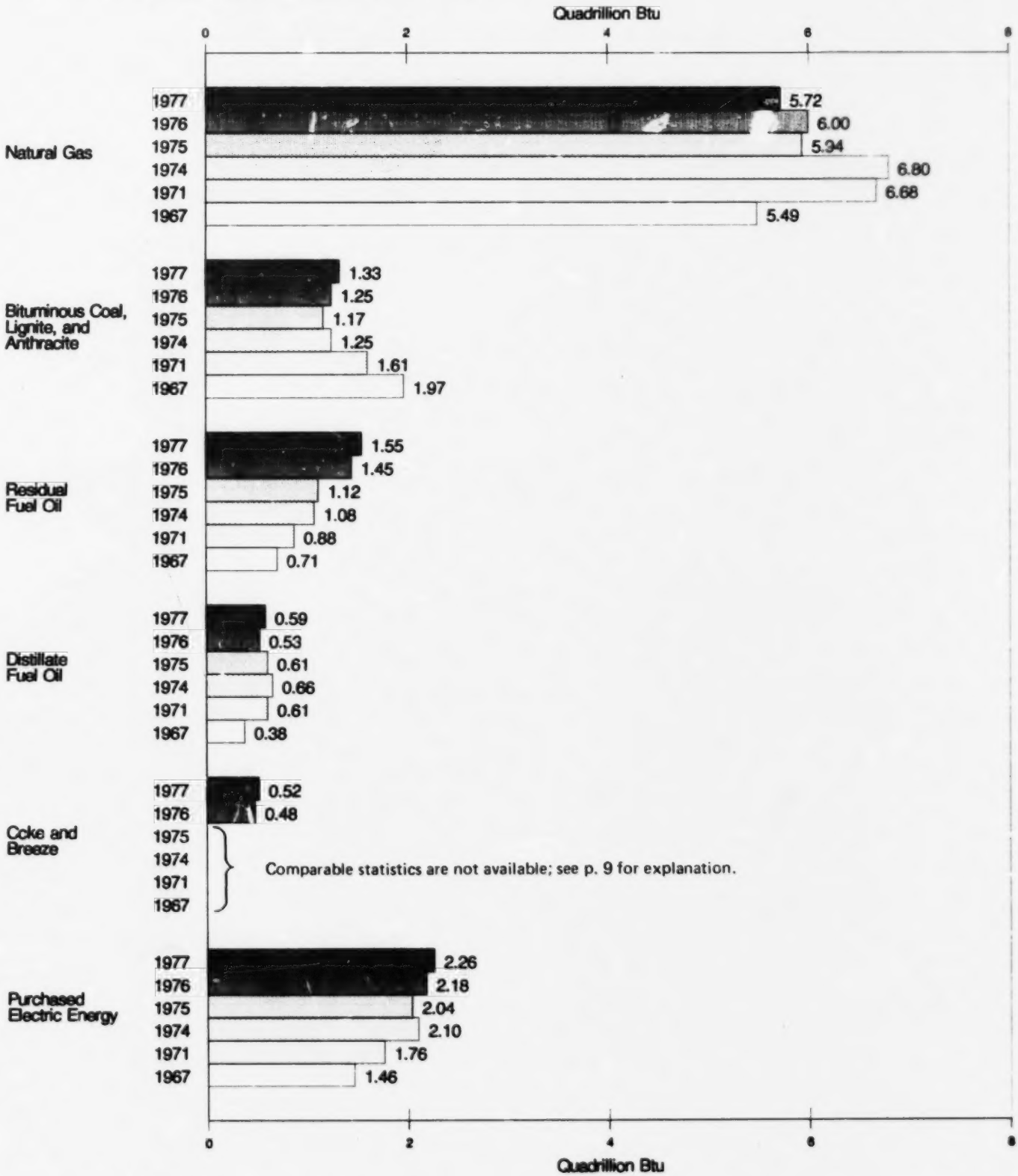


CHART 4.

Percent of Manufacturing Energy (BTU) Consumption Represented by Selected Individual Fuels and Purchased Electric Energy: 1967, 1971 and 1974–1977

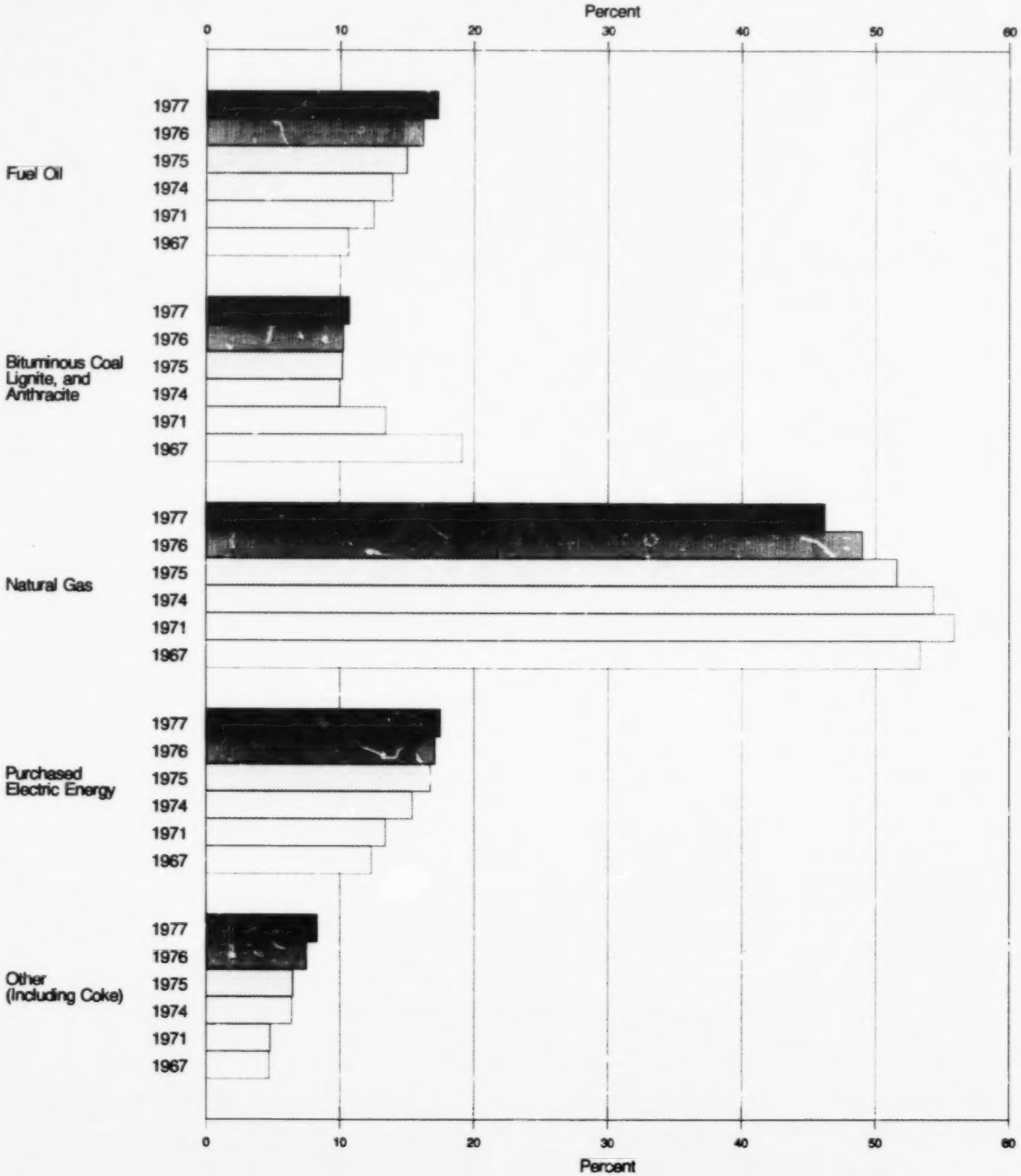


CHART 5.

Cost per Million British Thermal Units of Selected Fuels and Purchased Electric Energy Consumed by All Manufacturing Industries: 1967, 1971 and 1974–1977

(Excludes Other Fuels and Fuels Not Specified by Kind, which for 1977 averaged $2.09 and $1.59 per million Btu's)

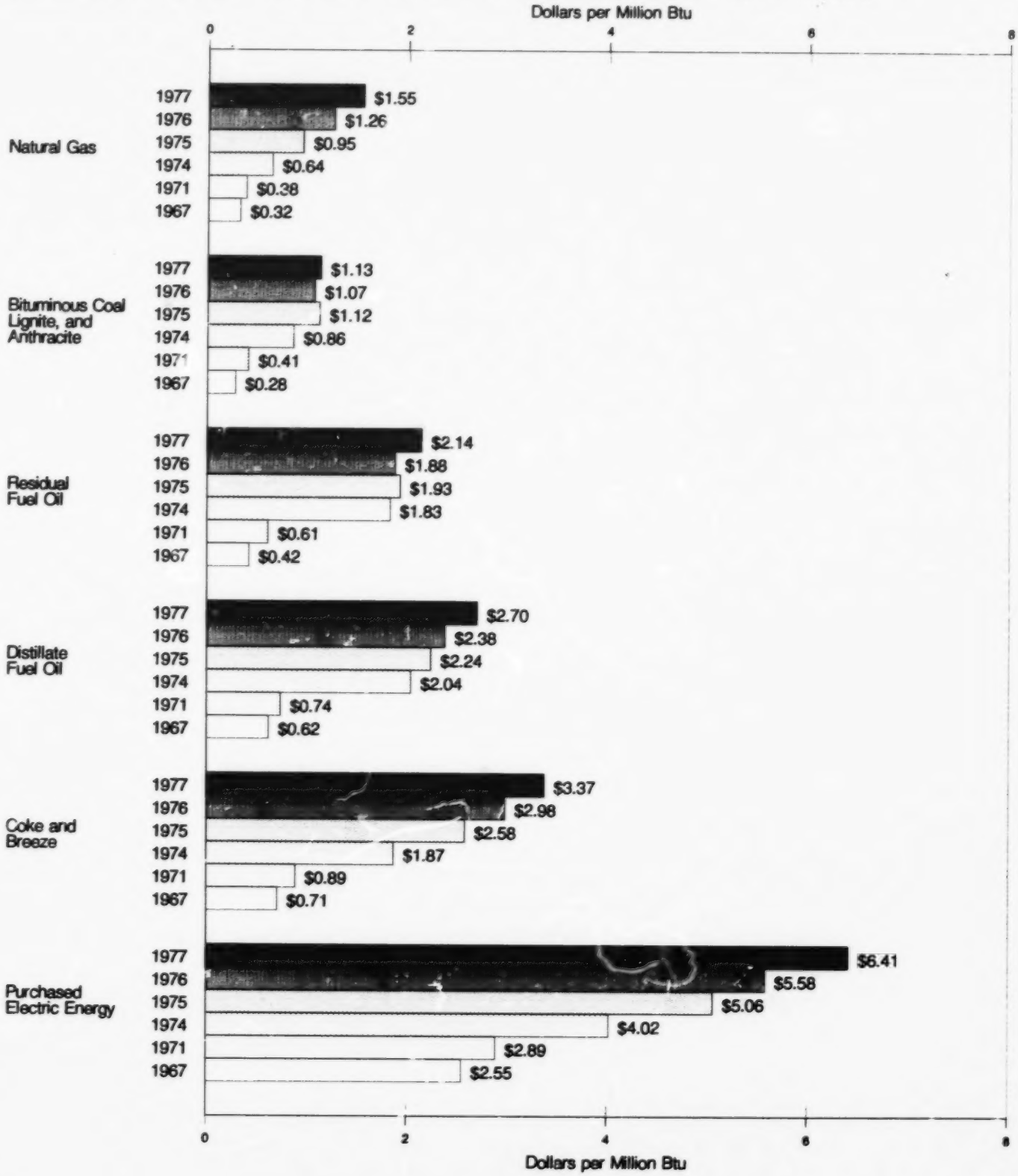


CHART 6.

Cost Per British Thermal Unit of Selected Fuels and Purchased Electric Energy Consumed by All Manufacturing Industries 1967, 1971 and 1974–1977 (1971=100)

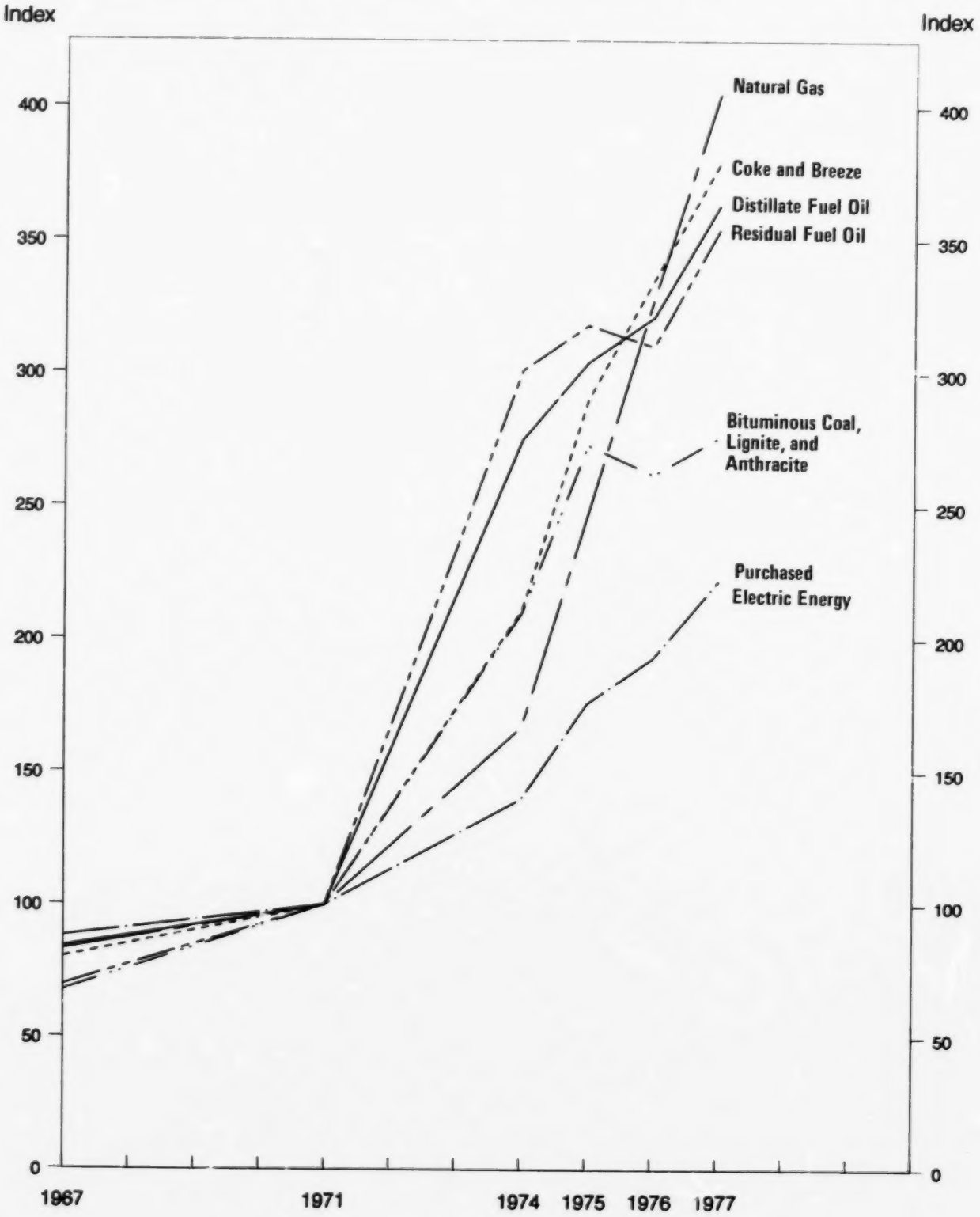


Table C. Purchased Fuels and Electric Energy Consumed by Major Industry Groups: 1976 and 1977

SIC code	Major group	Quantity (trillion Btu)			Total cost (million dollars)			Cost per million Btu's (dollars)		
		1977	1976	1977/1976 relative	1977	1976	1977/1976 relative	1977	1976	1977/1976 relative
	All industries	12,929.0	12,776.3	1.01	33,379.6	28,138.5	1.19	2.58	2.20	1.17
20	Food and kindred industries	952.4	945.0	1.01	2,537.8	2,173.3	1.17	2.66	2.30	1.16
21	Tobacco products	20.8	20.2	1.03	63.9	54.8	1.17	3.07	2.71	1.13
22	Textile mill products	339.2	336.7	1.01	1,136.6	1,009.0	1.13	3.35	3.00	1.12
23	Apparel and other textile products	65.6	62.0	1.06	285.8	245.3	1.17	4.36	3.96	1.10
24	Lumber and wood products	227.7	235.7	.97	726.5	640.0	1.14	3.19	2.72	1.17
25	Furniture and fixtures	52.7	49.7	1.06	198.3	168.2	1.18	3.76	3.38	1.11
26	Paper and allied products	1,308.4	1,300.2	1.01	2,960.4	2,526.6	1.17	2.26	1.94	1.16
27	Printing and publishing	92.3	88.8	1.04	421.7	362.6	1.16	4.57	4.08	1.12
28	Chemicals and allied products	2,978.5	2,989.3	1.00	6,448.7	5,430.6	1.19	2.17	1.82	1.19
29	Petroleum and coal products	1,303.4	1,304.8	1.00	2,465.4	2,108.2	1.16	1.88	1.62	1.16
30	Rubber and miscellaneous plastics products	272.3	250.3	1.09	962.4	765.3	1.26	3.53	3.06	1.15
31	Leather and leather products	23.1	22.6	1.02	82.6	71.7	1.15	3.58	3.17	1.13
32	Stone, clay, and glass products	1,251.2	1,226.9	1.02	2,587.4	2,167.8	1.19	2.07	1.77	1.17
33	Primary metal industries	2,539.4	2,470.6	1.03	7,043.6	5,752.2	1.22	2.77	2.33	1.19
34	Fabricated metal products	395.3	382.6	1.03	1,348.7	1,128.7	1.19	3.41	2.95	1.16
35	Machinery, except electrical	339.6	339.3	1.00	1,268.0	1,098.9	1.15	3.73	3.24	1.15
36	Electric and electronic equipment	249.3	241.5	1.03	986.7	824.5	1.20	3.96	3.41	1.16
37	Transportation equipment	389.9	385.0	1.01	1,402.6	1,195.8	1.17	3.60	3.11	1.16
38	Instruments and related products	78.4	76.7	1.02	272.5	239.3	1.14	3.48	3.12	1.12
39	Miscellaneous manufacturing industries	49.1	48.3	1.02	199.9	175.5	1.14	4.07	3.63	1.12

Btu British thermal units.

INDUSTRY DATA

At the 2-digit Standard Industrial Classification (SIC) level, purchased fuels and electric energy consumption increased in 17 of the 20 major industry groups and decreased slightly in the other 3 groups (table C). The largest decrease was in major group 24, Lumber and Wood Products, which showed a 3 percent drop, reflecting a decrease of 8.0 trillion Btu's from 1976. Those with the largest absolute increase in fuels and electric energy consumption in trillions of Btu's were major group 33, Primary Metal Industries; 32, Stone, Clay, and Glass Products; and 30, Rubber and Miscellaneous Plastics Products. The groups that recorded the largest percentage increase were major group 30, Rubber and Miscellaneous Plastics Products (9 percent); 23 Apparel and Other Textile Products (6 percent); and 25, Furniture and Fixtures (6 percent).

Between 1976 and 1977, the average cost per Btu of purchased fuels and electric energy increased in all 20 2-digit major industry groups. The largest increase (19 percent) was recorded in major group 28, Chemicals and Allied Products. This was caused primarily by an increased average cost of natural gas.

In 1977, as in 1976, 1975, and 1974, major industry groups 27, Printing and Publishing, and 23, Apparel and Other Textile Products, recorded the highest average cost per million Btu's: $4.57 and $4.36 respectively. Electric energy accounts for a relatively high percentage of energy consumed by establishments in these two industry groups.

Energy consumption in manufacturing is highly concentrated among a few industries that are energy intensive because of their use of large amounts of energy in manufacturing processes (rather than mainly for heat and light). SIC industry 3312, Blast Furnances and Steel Mills, consumed 1,519 trillion BTU's, making it the largest energy-consuming industry in manufacturing. Other major energy-consuming industries in descending order of consumption were 2911, Petroleum Refining (1,223 trillion); 2869, Industrial Organic Chemicals, not elsewhere classified (1,096 trillion); and 2621, Papermills, Except Building Paper (588 trillion). These four industries accounted for 34 percent of the total energy consumption of all 449 manufacturing industries (charts 7 and 8 and table D).

REVISIONS TO 1976 COKE AND BREEZE DATA

Data on the consumption of purchased coke and breeze before 1976 are not fully comparable with the data for 1976 and 1977.

During review of the 1977 Census of Manufactures data on the production and disposition of coke and breeze, it became evident that the amount of purchased coke consumed as a fuel was understated for some establishments. This occurred because some respondents misinterpreted instructions for reporting coke consumption. Correct 1977 data were obtained and the 1976 figures for purchased coke and breeze were adjusted to reflect the true consumption picture. These adjustments increased 1976 quantity and cost figures for coke and breeze (table E). It is not possible to develop comparable consumption figures for earlier years. However, the magnitude of the 1976 revisions gives a good indication of the probable impact on the 1974 and 1975 figures.

CHART 7.

Fuels and Purchased Electric Energy Consumed by Largest 4, 8, and 16 Energy Consuming Industries as a Percent of Total Consumed by All Manufacturing Industries: 1977

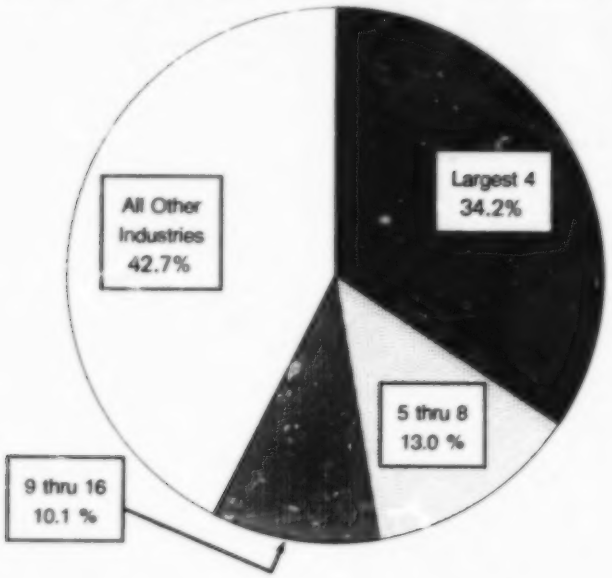


Table D. Purchased Fuels and Electric Energy Consumed by 16 Largest Energy-Consuming Industries: 1977

Rank	SIC code	Industry	Btu's consumed (trillions)
1	3312	Blast furnaces and steel mills.....	1,519.2
2	2911	Petroleum refining.....	1,222.8
3	2869	Industrial organic chemicals, n.e.c...	1,095.9
4	2621	Papermills, except building paper.....	587.5
(X)		Largest 4 industries.....	4,425.4
5	2631	Paperboard mills.....	482.8
6	3241	Cement, hydraulic.....	453.1
7	2819	Industrial inorganic chemicals, n.e.c.	422.2
8	3334	Primary aluminum.....	327.7
(X)		Largest 8 industries.....	6,111.2
9	2873	Nitrogenous fertilizers.....	251.5
10	2821	Plastics materials and resins.....	182.7
11	2865	Cyclic crudes and intermediates.....	171.9
12	2824	Organic fibers, noncellulosic.....	147.9
13	3221	Glass containers.....	144.5
14	3079	Miscellaneous plastics products.....	139.3
15	3714	Motor vehicle parts, and accessories..	137.0
16	2812	Alkalies and chlorine.....	126.9
(X)		Largest 16 industries.....	7,412.9
(X)		Other industries.....	5,516.1
		All industries.....	12,929.0

Btu British thermal units. (X) Not applicable.

CHART 8.

Fuels and Purchased Electric Energy Consumed by 8 Largest Consuming Industries: 1974-1977

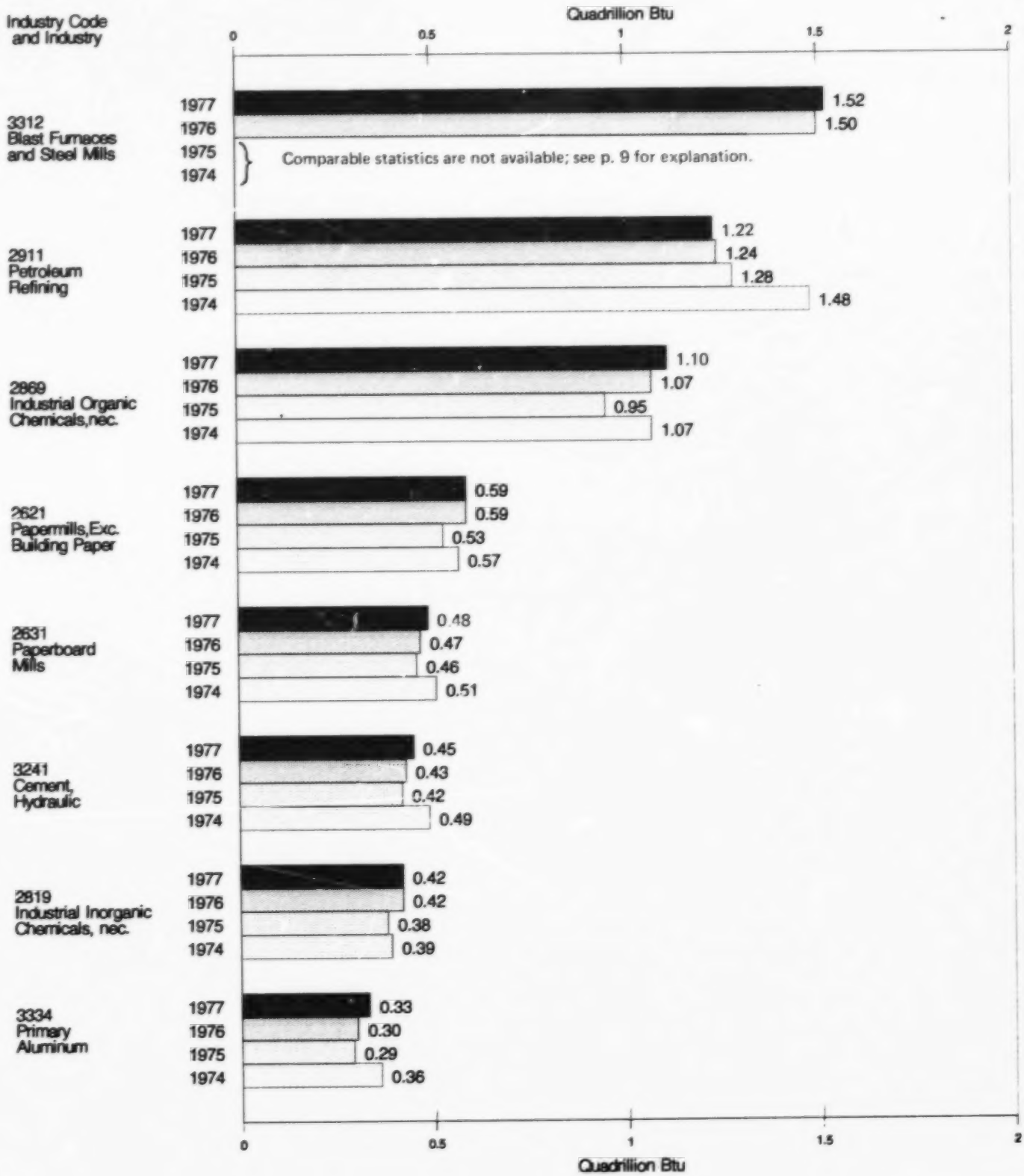


Table E. **Revisions to 1976 Coke and Breeze Statistics**

Fuel	Published 1976		Revised 1976	
	Quantity (1,000 s. tons)	Cost (mil. dol.)	Quantity (1,000 s. tons)	Cost (mil. dol.)
	All industries			
Coke and breeze.....	15,665.7	1,141.2	18,536.8	1,437.2
	Industry 3312, Blast furnaces and steel mills			
Coke and breeze.....	13,031.4	879.9	15,447.1	1,115.7

Table F. **Conversion to British Thermal Units: 1977**

Kind of energy	Unit of measure	Btu's (1,000)
Electric energy.	1,000 kWh	3,412
Coal	Short tons.	26,194
Coke	. . do.	25,993
Fuel oil:		
Distillate	Barrels (42-gal.) .	5,824
Residual	. . do.	6,285
Natural gas.	MCF (1,000 cu. ft.)	1,024
Other fuels.	Dollars	478

Note: For costs of "fuels, not specified by kind," conversion factors for 1977 were developed for each 2-digit SIC group, based on the relationship of total cost of fuels to the total kilowatt-hour equivalents for those groups, as published in M76(AS)-4.1, "Fuels and Electric Energy," 1976 Annual Survey of Manufactures.

CONVERSION TO BRITISH THERMAL UNITS (BTU'S)

Fuels consumed data were converted to British thermal units (BTU's) to provide comparable figures (table F). A Btu is the quantity of heat required to raise the temperature of one pound of water by 1 degree Fahrenheit. Btu factors reflect the energy content of the various fuels with no regard to efficiency of use. Since some fuel applications are considerably more efficient than others (none 100 percent efficient), the Btu figures must be considered as the maximum amount of available energy.

Beginning in 1976, the Btu rather than the kilowatt-hour equivalent was used as the common unit of measure for this statistical series. Several data users recommended the adoption of Btu's as the standard for energy quantification. There are 3,412 Btu's in one kilowatt-hour equivalent.

FUELS EXCLUDED FROM REPORT

Data on fuels produced and consumed in the same establishment, such as coke-oven gas or blast-furnaces gas; data on fuels used as raw materials, such as fuel oil and natural gas used to produce carbon black and crude petroleum used to produce fuels; and fuels converted to other fuel types, such as coal converted to coke, were not collected in the 1974, 1975, 1976, or 1977 surveys. As a result, significant amounts of energy materials used in manufacturing plants are not covered by this report. For example, in 1972 coke produced and consumed in SIC Industry 3312, Blast Furnaces and Steel Mills, amounted to 40.5 million short tons or 1.1 quadrillion Btu's. Inclusion of this coke would have increased the gross Btu's of fuels consumed by manufacturers by about 8 to 10 percent.

1972 AND 1977 REVISIONS TO STANDARD INDUSTRIAL CLASSIFICATION SYSTEM

A revised edition of the Standard Industrial Classification (SIC) manual was issued in 1972, the first major revision since 1957. In the 1972 version, extensive modifications were made in the manufacturing sector which affect comparability with the historic data in many industries. In 1977 a supplement to the 1972 SIC manual was issued presenting several minor additional changes to the classification system. More detailed descriptions of these changes are found in the 1972 and 1977 Census of Manufactures (MC72(1)-1 and MC77-SR-1).

CENSUS DISCLOSURE RULES

The Bureau of the Census is prohibited by law from publishing any statistics that would disclose information reported by individual companies. Additionally, quantity or cost data may be withheld if the figures do not meet publication standards on the basis of a consistency review. However, the total figures for a State, industry group, or major group include data for all component industries whether or not separate figures are shown for the individual industries comprising the total.

The review and issuance of the final industry publications for the 1977 Census of Manufactures was done on a flow basis. Revisions were made to a limited number of data cells after the tables for this publication were completed. Because of the time and expense involved, corrections were carried to the fuels and electric energy tables only if they resulted in a revision of 2 percent or more for an individual industry.

Table 1. Fuels and Electric Energy Used for Heat and Power: 1977 and Earlier Years

(For explanation of terms, see appendix B)

Year	Cost of purchased fuels and electric energy (million dollars)	Cost of purchased fuels (million dollars)	Electric energy		
			Purchased		Generated less sold (million kWh)
			Quantity (million kWh)	Cost (million dollars)	
1977	33,379.6	18,864.7	663,351.0	14,515.1	63,194.2
1976[1]	28,138.5	15,959.5	640,164.6	12,179.1	63,843.9
1975[1]	23,290.7	12,977.8	596,798.0	10,312.9	63,275.0
1974[1]	19,468.3	11,003.0	616,665.1	8,465.3	80,932.3
1973[1]	13,625.5	7,012.3	612,601.5	6,613.2	84,864.7
1972	11,771.7	6,055.9	557,468.9	5,715.8	87,185.7
1971	10,432.1	5,360.6	514,612.7	5,070.6	82,828.0
1970	9,424.7	4,845.7	500,768.7	4,579.2	83,327.3
1969	8,751.4	4,456.6	497,015.7	4,294.8	83,351.7
1968	8,272.1	4,263.0	458,908.4	4,009.1	82,752.2
1967	7,691.7	3,974.9	427,465.1	3,716.8	78,355.8
1966	7,365.9	3,902.3	399,390.0	3,463.6	80,500.0
1965	6,973.4	3,727.3	373,428.0	3,246.1	80,453.0
1964	6,706.6	3,583.9	357,292.0	3,122.7	79,740.0
1963	6,369.7	3,409.0	333,512.0	2,960.7	72,949.0
1962	6,184.0	3,360.7	313,961.0	2,823.3	74,261.0
1961	5,825.3	3,192.6	298,325.0	2,632.7	68,533.0
1960	5,765.1	3,192.9	291,949.0	2,572.2	70,016.0
1959	5,544.6	3,082.7	281,301.0	2,461.9	69,291.0
1958	5,067.0	2,836.2	252,909.0	2,230.8	66,850.0

[1] Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample.

Table 2. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power: 1977 and Selected Earlier Years

(For explanation of terms, see appendix B)

Year	Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite	
					Distillate		Residual			
	British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)
1977	12,929.0	33,379.6	10,665.5	18,864.7	101,594.5	1,596.4	246,176.3	3,317.0	50,622.6	1,494.0
1976[1]	12,776.3	28,138.5	10,592.1	15,959.5	90,202.6	1,252.3	231,122.5	2,733.4	47,903.0	1,344.2
1975[1]	12,084.1	23,290.7	10,047.8	12,977.8	104,894.2	1,369.7	177,452.4	2,149.0	44,623.3	1,310.3
1974[1]	13,548.3	19,468.3	11,444.2	11,003.0	113,823.6	1,350.4	171,095.3	1,964.9	47,806.8	1,083.1
1971	13,008.3	10,432.1	11,252.4	5,360.6	104,940.8	453.4	140,726.4	535.9	61,392.6	658.1
1967	11,810.3	7,691.7	10,351.7	3,974.9	65,653.9	236.9	112,938.9	298.7	75,100.0	551.7
1962	9,810.5	6,184.1	8,739.2	3,360.7	44,730.0	190.9	150,885.0	432.4	89,438.0	639.5
1958	8,247.8	5,067.0	7,384.9	2,836.2	[2]166,301.0	[2]522.7	([2])	([2])	81,784.0	638.2

Year	Coke and breeze		Natural gas		Other fuels (million dollars)	Fuels not specified by kind (million dollars)	Electric energy		
							Purchased		Generated less sold (million kWh)
	Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cu. ft.)	Cost (million dollars)			Quantity (million kWh)	Cost (million dollars)	
1977	19,957.7	1,747.6	5,585.7	8,879.4	[4]1,076.1	754.3	663,351.0	14,515.1	63,194.2
1976[1]	18,536.0	1,437.2	5,858.1	7,532.2	[4]911.4	748.8	640,164.6	12,179.1	63,843.9
1975[1]	13,156.8	880.8	5,804.8	5,653.1	[4]849.5	765.4	596,798.0	10,312.9	63,275.0
1974[1]	15,215.2	744.6	6,566.4	4,360.1	[4]702.6	797.2	616,665.1	8,465.3	80,932.3
1971	13,742.8	317.6	6,454.4	2,559.9	[4]377.5	458.2	514,612.7	5,070.6	82,828.0
1967	13,562.5	248.9	[3]5,306.9	[3]1,749.1	220.2	669.4	427,465.1	3,716.8	78,355.8
1962	17,747.0	304.8	[3]4,308.1	[3]1,455.9	337.1	-	313,961.0	2,823.3	74,261.0
1958	13,585.0	271.0	[3]3,112.2	[4]900.9	147.9	355.6	252,909.0	2,230.8	66,850.0

- Represents zero.
[1] Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample.
[2] Figures for residual fuel oil are included with distillate fuel oil.
[3] Figure includes manufactured, still, blast-furnace, and coke-oven gas.
[4] Figure includes gas, except natural gas.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	I	J	F	H	J
	ALL INDUSTRIES	12,929.0	33,379.6	10,665.5	18,864.7	101,594.5	1,596.4	246,176.3	3,317.0	50,622.6	1,494.0	1	1	1
20	FOOD AND KINDRED PRODUCTS	952.4	2,537.8	815.8	1,486.2	12,936.2	203.5	19,164.6	267.0	3,384.8	93.9	2	2	1
21	TOBACCO PRODUCTS	20.8	63.9	16.5	31.1	270.7	4.3	875.0	12.4	(D)	(D)	3	2	(X)
22	TEXTILE MILL PRODUCTS	539.2	1,136.6	245.0	492.9	4,979.0	78.1	11,639.2	167.3	1,206.8	42.9	5	3	1
23	APPAREL, OTH. TEXTILE PRODS.	65.6	285.8	43.0	85.2	770.7	12.6	666.2	9.8	68.2	2.8	13	7	25
24	LUMBER AND WOOD PRODUCTS	227.7	726.5	172.6	361.0	5,767.5	96.3	2,429.6	34.3	(D)	(D)	5	6	(X)
25	FURNITURE AND FIXTURES	52.7	198.3	38.5	76.1	905.1	15.0	444.8	6.8	111.5	4.3	5	5	4
26	PAPER AND ALLIED PRODUCTS	1,308.4	2,960.4	1,156.3	2,036.6	5,733.2	88.5	75,227.3	969.1	8,662.8	260.3	2	1	1
27	PRINTING AND PUBLISHING	92.5	421.7	56.3	113.8	1,020.7	16.9	447.2	6.7	(D)	(D)	7	5	(X)
28	CHEMICALS, ALLIED PRODUCTS	2,978.5	6,448.7	2,469.7	3,727.7	20,411.9	302.4	45,540.9	613.4	13,061.9	380.9	1	1	1
29	PETROLEUM AND COAL PRODUCTS	1,303.4	2,445.4	1,200.5	1,805.7	3,840.7	59.3	9,700.9	133.5	183.6	5.2	7	3	8
30	RUBBER, MISC. PLASTICS PROD.	272.3	962.4	195.3	382.1	3,181.7	49.8	7,508.4	104.9	910.6	24.3	2	2	1
31	LEATHER, LEATHER PRODUCTS	23.1	82.6	18.2	36.8	367.3	5.9	842.5	11.9	44.4	1.0	10	11	16
32	STONE, CLAY, GLASS PRODUCTS	1,251.8	2,587.4	1,146.3	1,825.4	13,893.2	225.1	13,075.0	168.4	13,147.6	359.3	3	5	1
33	PRIMARY METAL INDUSTRIES	2,539.4	7,043.6	2,001.2	4,296.7	12,448.4	194.2	41,304.7	560.3	5,167.8	161.5	1	1	1
34	FABRICATED METAL PRODUCTS	395.3	1,348.7	305.2	603.4	4,671.7	76.2	3,542.3	51.7	413.7	14.1	3	3	3
35	MACHINERY, EXCEPT ELECTRIC	339.6	1,268.0	242.5	471.7	3,434.2	57.0	5,432.7	50.6	704.7	22.3	3	2	1
36	ELECTRIC, ELECTRONIC EQUIP	249.3	986.7	164.1	317.3	2,763.1	44.2	2,422.4	35.2	547.6	17.0	2	1	1
37	TRANSPORTATION EQUIPMENT	389.9	1,402.6	284.2	553.5	2,856.2	45.3	5,594.0	80.1	1,842.9	62.3	2	1	1
38	INSTRUMENTS, RELATED PRODS	78.4	272.5	59.5	108.2	585.0	9.4	1,481.0	21.3	(D)	(D)	4	1	(X)
39	MISC. MANUFACTURING INDUS.	49.1	199.9	35.0	73.2	758.3	12.5	837.5	12.4	(D)	(D)	7	5	(X)
20	FOOD AND KINDRED PRODUCTS	952.4	2,537.8	815.8	1,486.2	12,936.2	203.5	19,164.6	267.0	3,384.8	93.9	2	2	1
201	MEAT PRODUCTS	107.4	322.9	84.5	150.4	1,544.9	24.5	1,285.5	18.6	147.5	5.3	2	2	3
2011	MEATPACKING PLANTS	64.3	171.5	52.8	90.1	912.0	14.3	699.3	9.9	(D)	(D)	3	3	(X)
2013	SAUSAGES, OTHER PREPARED MEATS	19.6	70.9	14.5	27.9	201.3	3.3	(D)	(D)	(D)	(D)	9	(X)	(X)
2016	POULTRY DRESSING PLANTS	20.2	70.6	14.6	27.8	393.7	6.4	(D)	(D)	(D)	(D)	4	(X)	(X)
2017	POULTRY AND EGG PROCESSING	3.3	9.9	2.6	4.6	37.9	.6	(D)	(D)	-	-	10	(X)	(X)
202	DAIRY PRODUCTS	93.9	289.7	75.9	147.3	1,605.5	26.3	1,654.6	23.8	33.9	1.3	8	5	1
2021	CREAMERY BUTTER	3.3	8.0	3.0	5.6	45.2	.7	24.7	.3	-	-	28	1	(X)
2022	CHEESE, NATURAL AND PROCESSED	23.7	59.4	21.0	39.6	457.2	7.4	673.6	9.5	(D)	(D)	20	5	(X)
2023	CONDENSED AND EVAPORATED MILK	25.5	59.5	23.6	44.1	279.6	4.3	403.6	5.7	(D)	(D)	5	5	(X)
2024	ICE CREAM AND FROZEN DESSERTS	6.6	34.1	3.6	7.3	85.6	1.4	41.0	.6	-	-	12	10	(X)
2026	FLUID MILK	34.7	128.9	24.7	50.7	737.9	12.4	511.6	7.6	(D)	(D)	12	12	(X)
203	PRESERVED FRUITS AND VEGETABLES	134.6	367.4	115.2	225.5	1,655.1	25.6	3,145.9	42.8	90.2	3.5	7	2	2
2032	CANNED SPECIALTIES	18.9	48.0	17.2	34.7	207.0	3.3	776.8	11.2	84.1	3.2	3	1	1
2033	CANNED FRUITS AND VEGETABLES	47.4	123.6	42.9	85.7	635.3	10.2	1,011.6	13.8	(D)	(D)	7	6	(X)
2034	DEHYD. FRUITS, VEGETABLES, SOUP	15.1	35.1	13.4	24.7	137.8	1.9	(D)	(D)	(D)	(D)	7	(X)	(X)
2035	PICKLES, SAUCES, SALAD DRESSING	7.9	23.5	6.6	12.9	104.6	1.7	175.2	2.6	-	-	2	8	(X)
2037	FROZEN FRUITS AND VEGETABLES	33.4	92.0	27.1	52.7	(S)	..	(S)	(S)	-	-	(X)	(X)	(X)
2038	FROZEN SPECIALTIES	11.9	45.2	8.0	14.7	137.2	2.3	(D)	(D)	-	-	5	(X)	(X)
204	GRAIN MILL PRODUCTS	151.6	369.9	129.1	205.6	2,014.0	31.1	2,078.2	28.6	1,210.4	36.3	2	4	1
2041	FLOUR, OTHER GRAIN MILL PRODS.	10.3	46.0	4.8	8.0	81.9	1.3	(D)	(D)	(D)	(D)	12	(X)	(X)
2043	CEREAL BREAKFAST FOODS	10.2	31.0	8.2	16.6	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2044	RICE MILLING	3.8	12.7	2.7	5.6	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2045	BLENDED AND PREPARED FLOUR	1.6	6.3	1.1	1.9	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	1
2046	WET CORN MILLING	84.4	153.3	78.9	115.6	1,206.4	18.2	1,202.1	16.2	1,151.4	34.3	1	4	1
2047	DOG, CAT, AND OTHER PET FOOD	12.9	39.9	10.3	19.7	(S)	(S)	(S)	(S)	(D)	(D)	(X)	(X)	(X)
2048	PREPARED FEEDS, NEC	28.4	80.7	23.1	37.9	324.3	5.5	154.6	2.0	(D)	(D)	9	6	(X)
205	BAKERY PRODUCTS	53.2	161.7	44.6	89.0	599.5	10.1	372.7	5.7	(D)	(D)	10	9	(X)
2051	BREAD, CAKE, RELATED PRODUCTS	42.3	127.9	35.6	70.1	542.5	9.0	248.8	3.8	(D)	(D)	11	10	(X)
2052	COOKIES AND CRACKERS	10.9	33.8	9.0	18.9	(S)	(S)	(S)	(S)	-	-	(X)	(X)	(X)
206	SUGAR, CONFECTIONERY PRODUCTS	141.1	286.2	133.6	227.0	1,154.0	16.3	4,580.8	61.9	1,281.6	29.3	2	1	1
2061	RAW CANE SUGAR	12.9	30.9	12.3	26.0	104.0	1.7	705.5	9.5	-	-	2	1	(X)
2062	CANE SUGAR REFINING	32.5	69.6	32.1	65.8	209.9	3.2	2,043.5	29.1	-	-	1	1	(X)
2063	BEET SUGAR	75.0	111.0	73.8	103.9	532.9	6.5	(D)	(D)	(D)	(D)	1	(X)	(X)
2065	CONFECTIONERY PRODUCTS	14.6	50.8	10.8	21.2	234.2	3.7	312.9	4.5	(D)	(D)	6	3	(X)
2066	CHOCOLATE AND COCOA PRODUCTS	4.7	17.8	3.6	7.8	24.9	.4	340.1	4.8	(D)	(D)	1	1	(X)
2067	CHEWING GUM	1.4	6.1	1.0	2.3	48.0	.8	(D)	(D)	-	-	1	(X)	(X)
207	FATS AND OILS	110.8	272.9	99.3	186.6	1,985.8	30.4	2,999.9	42.4	177.9	5.2	6	8	1
2074	COTTONSEED OIL MILLS	6.6	22.6	4.7	8.3	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2075	SOYBEAN OIL MILLS	45.3	107.2	40.5	74.7	1,062.7	16.6	1,045.4	14.6	(D)	(D)	1	1	(X)
2076	VEGETABLE OIL MILLS, NEC	2.3	6.2	2.0	3.5	29.9	.5	(D)	(D)	(D)	(D)	1	(X)	(X)
2077	ANIMAL AND MARINE FATS AND OILS	29.6	74.5	27.1	53.3	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2079	SHORTENING AND COOKING OILS	27.0	62.4	25.0	47.0	332.4	5.1	802.9	11.2	(D)	(D)	2	5	(X)
208	BEVERAGES	105.9	289.7	90.4	166.1	1,421.6	22.7	2,203.9	30.9	639.3	12.9	5	2	4
2082	MALT BEVERAGES	50.1	132.2	43.2	81.2	676.8	10.4	1,722.9	24.0	(D)	(D)	4	1	(X)
2083	MALT	9.6	23.4	8.4	15.4	76.4	1.2	(D)	(Z)	(D)	(Z)	20	6	1
2084	WINES, BRANDY, BRANDY SPIRITS	3.6	13.3	2.7	5.4	23.3	.4	(D)	(D)	(D)	(Z)	4	(X)	85
2085	DISTILLED LIQUOR, EXCEPT BRANDY	15.6	30.1	14.5	22.2	284.6	4.6	(D)	(D)	(D)	(D)	2	(X)	(X)
2086	BOTTLED AND CANNED SOFT DRINKS	22.8	76.8	18.0	34.2	275.1	4.7	(D)	(D)	(D)	(Z)	17	(X)	80
2087	FLAVORING EXTRACTS, SIRUPS, NEC	4.3	13.9	3.5	7.7	83.5	1.4	157.9	2.3	-	-	27	10	(X)
209	MISC. FOODS, KINDRED PRODUCTS	53.8	177.3	43.2	88.7	975.9	16.8	848.2	12.4	(D)	(D)	7	1	(X)
2091	CANNED AND CURED SEAFOODS	4.2	13.3	3.5	7.5	83.3	1.7	51.0	.8	-	-	23	11	(X)
2092	FRESH OR FROZEN PACKAGED FISH	5.2	20.2	3.7	8.2	162.0	3.0	20.1	.3	-	-	13	1	(X)
2095	ROASTED COFFEE	9.9	30.7	8.4	18.0	(D)	(D)	382.9	5.8	-	-	(X)	1	(X)
2097	MANUFACTURED ICE	2.5	15.5	.6	1.1	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	85
2098	MACARONI AND SPAGHETTI	2.5	9.3	1.8	3.6	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2099	FOOD PREPARATIONS, NEC	29.6	88.4	25.2	50.2	523.4	8.5	361.1	5.0	(D)	(D)	11	1	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977--Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]--
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	W
	ALL INDUSTRIES	1[2]957.7	1,747.6	5,585.7	8,879.4	1,076.1	754.3	663,351.0	14,515.1	63,194.2	12,776.3	28,138.5	1
20	FOOD AND KINDRED PRODUCTS	53.7	6.1	426.5	743.3	77.5	94.8	40,046.0	1,051.6	2,344.9	945.0	2,173.5	1
21	TOBACCO PRODUCTS	-	-	2.3	4.2	.2	(D)	1,250.1	32.8	(D)	20.2	54.8	2
22	TEXTILE MILL PRODUCTS	(Z)	(Z)	74.0	134.6	34.2	35.8	27,609.5	643.7	438.8	336.7	1,009.0	2
23	APPAREL, OTH. TEXTILE PRODS.	(D)	(D)	15.2	27.0	4.4	(D)	6,619.9	200.6	(S)	82.0	245.3	5
24	LUMBER AND WOOD PRODUCTS	-	-	64.0	112.2	84.4	(D)	16,125.5	365.5	298.5	235.7	640.0	2
25	FURNITURE AND FIXTURES	-	-	18.0	32.2	5.5	12.4	4,190.3	122.3	(S)	49.7	168.2	3
26	PAPER AND ALLIED PRODUCTS	-	-	350.0	590.1	102.4	26.2	44,559.8	923.8	27,383.5	1,300.2	2,526.6	4
27	PRINTING AND PUBLISHING	-	-	28.4	53.4	13.7	(D)	10,553.7	307.9	6.2	88.8	362.6	4
28	CHEMICALS, ALLIED PRODUCTS	(D)	(D)	1,484.0	2,049.4	301.1	(D)	149,140.9	2,721.0	12,942.6	2,989.3	5,430.6	1
29	PETROLEUM AND COAL PRODUCTS	(D)	(D)	1,051.0	1,546.3	27.0	(D)	30,153.2	639.7	4,516.7	1,304.8	2,108.2	1
30	RUBBER, MISC. PLASTICS PROD.	-	-	71.3	124.4	14.1	44.7	22,556.9	600.3	423.9	250.3	765.3	2
31	LEATHER, LEATHER PRODUCTS	-	-	5.5	10.0	2.4	5.6	1,416.8	45.9	14.7	22.6	71.7	5
32	STONE, CLAY, GLASS PRODUCTS	373.2	23.9	523.5	890.3	72.8	85.7	30,924.4	762.0	452.5	1,228.9	2,167.8	2
33	PRIMARY METAL INDUSTRIES	19,089.2	1,662.1	905.6	1,496.8	153.8	48.0	157,737.4	2,746.9	13,600.2	2,470.6	5,752.2	1
34	FABRICATED METAL PRODUCTS	63.4	7.9	184.3	348.7	45.7	59.1	26,386.7	745.4	(S)	382.6	1,128.7	2
35	MACHINERY, EXCEPT ELECTRIC	109.2	14.6	127.9	234.7	36.5	56.0	28,441.4	796.4	199.7	339.3	1,098.9	1
36	ELECTRIC, ELECTRONIC EQUIP	12.2	1.5	84.4	158.3	33.2	27.9	24,996.9	669.4	(S)	241.5	824.5	1
37	TRANSPORTATION EQUIPMENT	209.1	28.1	137.6	262.0	55.4	20.3	30,985.1	849.1	(S)	385.0	1,195.8	1
38	INSTRUMENTS, RELATED PRODS	-	-	17.7	32.9	6.1	(D)	5,533.0	164.3	(D)	76.7	239.3	3
39	MISC. MANUFACTURING INDUS.	-	-	14.7	28.6	5.8	(D)	4,123.3	126.7	(S)	48.3	175.5	5
20	FOOD AND KINDRED PRODUCTS	53.7	6.1	426.5	743.3	77.5	94.8	40,046.0	1,051.6	2,344.9	945.0	2,173.5	1
201	MEAT PRODUCTS	(D)	(Z)	46.6	72.8	(D)	(D)	6,734.3	172.4	176.1	194.1	274.9	2
2011	MEATPACKING PLANTS	(D)	(Z)	30.6	46.0	(D)	7.9	3,389.9	81.4	(D)	65.5	155.0	1
2013	SAUSAGES, OTHER PREPARED MEATS	-	-	7.4	13.5	2.8	(D)	1,514.4	43.0	(D)	17.0	55.1	5
2016	POULTRY DRESSING PLANTS	-	-	7.0	10.8	2.8	2.9	1,636.4	42.7	(D)	17.8	53.9	2
2017	POULTRY AND EGG PROCESSING	-	-	1.6	2.5	(D)	(D)	193.5	5.3	-	3.8	10.9	12
202	DAIRY PRODUCTS	-	-	42.3	73.5	(D)	(D)	5,255.8	142.5	(S)	92.4	253.9	2
2021	CREAMERY BUTTER	-	-	1.6	2.7	(D)	(D)	84.7	2.4	-	3.1	12.1	4
2022	CHEESE, NATURAL AND PROCESSED	-	-	11.4	18.2	2.1	(D)	810.3	19.8	(Z)	21.7	49.7	4
2023	CONDENSED AND EVAPORATED MILK	-	-	14.8	26.3	3.5	(D)	540.7	15.3	(S)	20.6	42.4	4
2024	ICE CREAM AND FROZEN DESSERTS	-	-	1.9	3.5	(D)	(D)	876.3	26.8	(D)	4.7	29.3	7
2026	FLUID MILK	(D)	(D)	12.6	22.7	(D)	4.0	2,943.9	78.2	(S)	38.4	120.3	4
203	PRESERVED FRUITS AND VEGETABLES	(D)	(D)	71.3	134.7	(D)	12.1	5,679.9	141.9	15.2	126.1	297.9	2
2032	CANNED SPECIALTIES	-	-	8.3	16.0	(D)	(D)	490.2	13.3	(D)	19.9	41.7	8
2033	CANNED FRUITS AND VEGETABLES	(D)	(D)	27.1	52.5	(D)	(D)	1,306.5	37.9	-	46.0	102.9	2
2034	DEHYD. FRUITS, VEGETABLES, SOUP	-	-	9.9	18.5	(D)	3.0	512.9	10.4	(S)	13.6	28.4	5
2035	PICKLES, SAUCES, SALAD DRESSING	-	-	3.7	6.6	(D)	1.8	365.8	10.5	-	6.3	16.4	7
2037	FROZEN FRUITS AND VEGETABLES	-	-	(S)	(S)	(S)	(S)	1,852.6	39.3	(D)	28.6	64.3	(X)
2038	FROZEN SPECIALTIES	-	-	4.6	7.8	(D)	1.9	1,151.9	30.5	(Z)	11.8	39.2	3
204	GRAIN MILL PRODUCTS	-	-	61.4	92.0	(D)	(D)	6,603.9	164.3	748.0	151.2	313.0	3
2041	FLOUR, OTHER GRAIN MILL PRODS.	-	-	2.9	4.5	(D)	.6	1,597.9	38.0	-	10.9	41.7	2
2043	CEREAL BREAKFAST FOODS	-	-	(S)	(S)	(S)	(S)	575.8	14.4	(D)	9.3	24.2	(X)
2044	RICE MILLING	-	-	2.6	5.4	(D)	(Z)	309.7	7.1	(D)	3.6	10.3	1
2045	BLENDED AND PREPARED FLOUR	-	-	(S)	(S)	(S)	(S)	170.8	4.3	(D)	1.6	5.7	(X)
2046	WET CORN MILLING	-	-	33.1	46.7	.3	.2	1,017.8	37.5	710.8	83.0	123.2	1
2047	DOG, CAT, AND OTHER PET FOOD	-	-	(S)	(S)	(D)	(S)	790.1	20.2	-	12.4	31.6	(X)
2048	PREPARED FEEDS, NEC	-	-	11.4	15.4	(D)	12.0	1,541.9	42.8	(S)	30.4	76.3	14
205	BAKERY PRODUCTS	-	-	38.6	59.2	8.4	(D)	2,530.9	72.7	(D)	50.8	135.5	4
2051	BREAD, CAKE, RELATED PRODUCTS	-	-	23.7	44.9	6.5	(D)	1,984.5	57.9	(D)	39.9	106.0	4
2052	COOKIES AND CRACKERS	-	-	(S)	(S)	(S)	(S)	546.4	14.8	-	10.9	29.5	(X)
206	SUGAR, CONFECTIONERY PRODUCTS	(D)	(D)	55.9	102.8	(D)	7.1	2,180.7	59.2	1,097.1	160.2	274.0	4
2061	RAW CANE SUGAR	-	-	5.0	10.9	1.6	2.3	175.1	5.0	310.0	12.9	27.4	34
2062	CANE SUGAR REFINING	-	-	17.5	33.3	(D)	(D)	116.9	3.7	357.0	33.8	60.3	1
2063	BEET SUGAR	(D)	(D)	26.9	46.8	(D)	(S)	348.8	7.1	430.1	93.4	120.9	1
2065	CONFECTIONERY PRODUCTS	-	-	(D)	(D)	1.1	2.9	1,109.0	29.6	-	14.2	44.4	(X)
2066	CHOCOLATE AND COCOA PRODUCTS	-	-	1.0	2.2	(D)	(D)	324.3	10.0	-	4.4	15.8	2
2067	CHEWING GUM	-	-	(D)	(D)	-	(D)	106.6	3.8	-	1.4	5.5	(X)
207	FATS AND OILS	-	-	52.3	88.7	9.8	10.2	3,382.0	86.3	67.1	105.7	220.7	4
2074	COTTONSEED OIL MILLS	-	-	4.2	7.0	.2	(D)	347.9	14.3	-	6.4	17.5	13
2075	SOYBEAN OIL MILLS	-	-	22.3	38.7	(D)	.3	1,422.8	32.5	(D)	46.8	93.3	2
2076	VEGETABLE OIL MILLS, NEC	-	-	.6	.9	(D)	.8	94.5	2.7	-	2.9	6.8	1
2077	ANIMAL AND MARINE FATS AND OILS	-	-	11.5	20.2	3.4	7.6	718.4	21.3	(S)	23.6	52.6	17
2079	SHORTENING AND COOKING OILS	-	-	13.7	24.9	1.4	(D)	598.4	15.5	(D)	26.1	50.4	2
208	BEVERAGES	(D)	(D)	46.0	81.0	(D)	(D)	4,564.6	123.6	240.4	100.2	293.7	4
2082	MALT BEVERAGES	-	-	21.8	39.3	3.7	(D)	2,033.0	50.9	228.9	45.2	108.4	6
2083	MALT	(D)	(D)	6.9	12.2	(D)	(D)	345.4	8.0	1.5	9.3	19.1	8
2084	WINES, BRANDY, BRANDY SPIRITS	-	-	1.6	3.3	(D)	.7	255.7	7.9	-	4.2	11.4	13
2085	DISTILLED LIQUOR, EXCEPT BRANDY	-	-	5.0	7.0	(D)	.8	305.9	7.9	(D)	15.3	25.6	4
2086	BOTTLED AND CANNED SOFT DRINKS	-	-	9.0	15.7	5.0	(D)	1,416.8	42.6	(D)	22.0	67.2	6
20	FLAVORING EXTRACTS, SIRUPS, NEC	-	-	1.8	3.5	.5	(Z)	207.9	6.2	-	4.1	11.9	11
209	MISC. FOODS, KINDRED PRODUCTS	-	-	19.9	38.5	(D)	13.5	3,113.9	88.7	14.2	54.3	100.0	3
2091	CANNED AND CURED SEAFOODS	-	-	1.1	2.0	2.0	1.1	200.0	5.8	(D)	3.7	10.4	3
2092	FRESH OR FROZEN PACKAGED FISH	-	-	.5	1.1	.9	2.9	430.0	12.0	-	4.5	16.9	5
2095	ROASTED COFFEE	-	-	3.9	8.0	(D)	1.7	437.5	12.6	-	11.1	29.8	1
2097	MANUFACTURED ICE	-	-	(Z)	.1	(Z)	(D)	572.5	14.4	-	2.5	15.0	32
2098	MACARONI AND SPAGHETTI	-	-	.8	1.5	(D)	(D)	195.6	5.6	-	2.3	8.9	23
2099	FOOD PREPARATIONS, NEC	-	-	13.8	25.9	(D)	6.4	1,278.3	38.2	(D)	30.2	79.1	3

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	I	J	F	H	J
21	TOBACCO PRODUCTS	20.8	63.9	16.5	31.1	270.7	4.3	875.0	12.4	(D)	(D)	3	2	(X)
2111	CIGARETTES	13.3	37.9	10.5	17.9	(D)	(D)	426.6	6.1	(D)	(D)	(X)	1	(X)
2121	CIGARS	.7	2.9	.4	.9	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2131	CHEWING AND SMOKING TOBACCO	.9	3.1	.8	1.7	41.6	.7	(D)	(D)	(D)	(D)	1	(X)	(X)
2141	TOBACCO STEMMING AND REDRYING	5.9	20.0	4.8	10.6	157.9	2.4	431.9	6.1	15.1	.7	5	3	8
22	TEXTILE MILL PRODUCTS	339.2	1,136.6	245.0	492.9	4,979.0	78.1	11,639.2	167.3	1,206.8	42.9	5	3	1
2211	WEAVING MILLS, COTTON	37.3	146.3	21.0	39.0	429.5	6.6	895.1	13.0	245.6	8.4	1	1	1
2221	WEAV'G MILLS, MANMADE FIBER	49.9	194.2	27.9	54.9	575.8	9.1	1,298.8	18.8	246.5	9.0	1	1	1
2231	WEAVING, FINISHING MILLS, WOOL	5.2	16.9	4.3	9.5	(S)	(S)	(S)	(S)	(D)	(D)	(X)	(X)	(X)
2241	NARROW FABRIC MILLS	3.9	15.7	2.5	5.4	111.2	1.8	78.7	1.1	(D)	(D)	13	9	(X)
225	KNITTING MILLS	59.3	192.4	46.6	101.8	1,273.4	20.0	2,453.4	36.1	32.5	1.5	10	4	4
2251	WOMEN'S HOSIERY, EXCEPT SOCKS	4.4	17.2	2.8	6.0	(D)	(D)	(D)	(D)	(Z)	(Z)	(X)	(X)	(X)
2252	HOSIERY, NEC	4.0	15.2	2.9	7.3	197.3	3.2	206.7	3.4	(D)	(D)	30	33	(X)
2253	KNIT OUTERWEAR MILLS	9.4	32.2	7.3	15.6	178.0	2.8	248.5	3.7	20.6	1.0	17	2	4
2254	KNIT UNDERWEAR MILLS	4.1	12.3	3.4	6.8	105.2	1.7	(D)	(D)	(D)	(Z)	17	(X)	(X)
2257	CIRCULAR KNIT FABRIC MILLS	25.5	76.9	20.7	45.1	508.9	7.8	1,131.5	16.1	7.8	.3	14	4	1
2258	WARP KNIT FABRIC MILLS	11.9	37.9	9.4	20.8	188.7	3.0	606.7	9.1	(D)	(D)	41	5	(X)
2259	KNITTING MILLS, NEC	.2	.7	.1	.2	(D)	(D)	-	-	-	-	(X)	(X)	(X)
226	TEXTILE FINISHING, EXCEPT WOOL	81.5	199.6	74.7	147.6	1,181.9	19.1	3,812.1	53.3	555.7	19.4	14	6	1
2261	FINISHING PLANTS, COTTON	26.1	60.8	24.5	47.6	267.2	4.2	1,454.9	19.9	(D)	(D)	8	5	(X)
2262	FINISH. PLTS, MANMADE FIBER	46.0	109.0	42.2	81.7	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)
2269	FINISHING PLANTS, NEC	9.5	29.8	8.0	18.3	444.2	7.5	348.6	4.9	(D)	(D)	30	13	(X)
227	FLOOR COVERING MILLS	32.7	84.6	29.0	54.3	382.7	5.7	1,095.9	15.8	(D)	(D)	23	1	(X)
2271	WOVEN CARPETS AND RUGS	.8	2.4	.7	1.4	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2272	TUFTED CARPETS AND RUGS	31.2	79.7	27.7	51.7	(D)	(D)	1,037.9	14.9	(D)	(D)	(X)	1	(X)
2279	CARPETS AND RUGS, NEC	.7	2.5	.6	1.2	(D)	(Z)	(D)	(D)	-	-	23	(X)	(X)
228	YARN AND THREAD MILLS	39.7	186.6	16.7	35.6	608.7	9.4	787.6	11.7	33.6	1.4	3	3	4
2281	YARN MILLS, EXCEPT WOOL	25.1	123.0	9.6	20.3	390.2	6.1	445.6	6.5	(D)	(D)	3	3	(X)
2282	THROWING AND WINDING MILLS	9.0	42.0	3.5	7.6	122.5	1.9	(D)	(D)	-	-	11	(X)	(X)
2283	WOOL YARN MILLS	1.0	4.1	.7	1.6	38.9	.6	(D)	(D)	-	-	19	(X)	(X)
2284	THREAD MILLS	4.6	17.5	2.9	6.1	57.1	.8	124.6	2.1	(D)	(D)	1	1	(X)
229	MISCELLANEOUS TEXTILE GOODS	29.5	100.5	22.3	44.9	362.7	5.7	670.7	9.7	(D)	(D)	9	1	(X)
2291	FELT GOODS, EXC. WOVEN AND HATS	1.4	4.6	1.1	2.2	(D)	(D)	75.2	1.1	-	-	(X)	1	(X)
2292	LACE GOODS	.8	2.1	.7	1.4	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2293	PADDINGS AND UPHOLSTERY FILLING	1.9	6.3	1.6	2.9	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2294	PROCESSED TEXTILE WASTE	.9	3.6	.6	1.3	29.8	.5	(D)	(D)	-	-	52	(X)	(X)
2295	COATED FABRICS, NOT RUBBERIZED	17.7	21.3	5.5	11.4	73.8	1.1	144.0	2.2	(D)	(D)	3	2	(X)
2296	TIRE CORD AND FABRIC	5.4	21.7	2.5	4.5	38.0	.5	(D)	(D)	(D)	(D)	1	(X)	(X)
2297	NONWOVEN FABRICS	7.7	23.8	6.6	13.8	152.4	2.4	355.3	5.0	(D)	(D)	14	1	(X)
2298	CORDAGE AND TWINE	1.4	6.6	.8	1.7	36.7	.6	12.6	.2	(D)	(Z)	22	1	72
2299	TEXTILE GOODS, NEC	3.4	10.5	2.9	5.6	4.9	.1	37.6	.5	-	-	5	1	(X)
23	APPAREL, OTH, TEXTILE PRODS	65.6	285.8	43.0	85.2	770.7	12.6	666.2	9.8	68.2	2.8	13	7	25
2311	MEN'S AND BOYS' SUITS AND COATS	5.5	23.0	4.0	8.5	110.5	1.8	60.1	.9	(D)	(D)	24	2	(X)
232	MEN'S AND BOYS' FURNISHINGS	14.1	64.1	8.3	15.6	143.1	2.4	53.4	.8	6.2	.3	10	9	13
2321	MEN'S, BOYS' SHIRTS, NIGHTWEAR	3.7	19.0	2.0	4.1	82.7	1.3	(D)	(D)	(D)	(D)	15	(X)	(X)
2322	MEN'S AND BOYS' UNDERWEAR	.6	2.3	.4	.8	(D)	(D)	(D)	(Z)	-	-	(X)	1	(X)
2323	MEN'S AND BOYS' NECKWEAR	.2	1.3	.1	.3	(D)	(D)	(D)	(Z)	-	-	(X)	67	(X)
2327	MEN'S, BOYS' SEPARATE TROUSERS	3.3	12.7	2.2	3.7	8.6	.1	(D)	(D)	(D)	(Z)	1	(X)	15
2328	MEN'S AND BOYS' WORK CLOTHING	4.4	20.3	2.4	4.4	29.0	.5	9.4	.2	(D)	(Z)	16	20	1
2329	MEN'S AND BOYS' CLOTHING, NEC	2.0	8.5	1.2	2.4	9.5	.2	15.8	.2	(D)	(D)	17	20	(X)
233	WOMEN'S AND MISSES' OUTERWEAR	16.8	82.6	10.2	20.2	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)	(X)
2331	WOMEN'S, MISSES' BLOUSES	4.2	17.7	3.0	5.6	(S)	(S)	(S)	(S)	(D)	(D)	(X)	(X)	(X)
2335	WOMEN'S AND MISSES' DRESSES	5.1	27.4	3.1	6.2	(S)	(S)	(S)	(S)	(D)	(Z)	(X)	(X)	1
2337	WOMEN'S, MISSES' SUITS, COATS	3.7	18.8	2.0	4.1	(S)	(S)	(D)	(D)	(D)	(Z)	(X)	(X)	1
2339	WOMEN'S, MISSES' OUTERWEAR, NEC	3.8	18.8	2.1	4.3	(S)	(S)	(D)	(D)	(Z)	(Z)	(X)	(X)	1
234	WOMEN'S, CHILDREN'S UNDERGARMS	3.6	18.9	1.9	4.2	136.9	2.1	19.8	.3	-	-	68	3	(X)
2341	WOMEN'S, CHILDREN'S UNDERWEAR	3.0	15.5	1.6	3.5	120.2	1.8	(D)	(D)	-	-	78	(X)	(X)
2342	BRASSIERES AND ALLIED GARMENTS	.6	3.4	.3	.6	16.7	.3	(D)	(Z)	-	-	16	1	(X)
235	HATS, CAPS, AND MILLINERY	1.2	4.1	1.0	2.0	(D)	(Z)	(D)	(D)	(D)	(D)	1	(X)	(X)
2351	MILLINERY	.1	.4	.1	.2	-	-	-	-	-	-	(X)	(X)	(X)
2352	HATS AND CAPS, EXCEPT MILLINERY	1.1	3.6	.9	1.9	(D)	(Z)	(D)	(D)	(D)	(D)	1	(X)	(X)
236	CHILDREN'S OUTERWEAR	2.7	12.5	1.6	3.2	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2361	CHILDREN'S DRESSES AND BLOUSES	1.5	6.8	1.0	2.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2363	CHILDREN'S COATS AND SUITS	.2	1.1	.1	.3	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2369	CHILDREN'S OUTERWEAR, NEC	.9	4.6	.4	.9	(D)	(D)	(D)	(Z)	(D)	(Z)	(X)	1	1
2371	FUR GOODS	.3	1.2	.2	.4	(D)	(Z)	-	-	-	-	1	(X)	(X)
238	MISC. APPAREL AND ACCESSORIES	2.8	12.0	1.9	3.9	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	45
2381	FABRIC DRESS AND WORK GLOVES	.5	2.0	.3	.7	(D)	(Z)	-	-	(D)	(Z)	66	(X)	60
2384	ROBES AND DRESSING GOWNS	.3	1.7	.2	.3	2.6	.1	(D)	(Z)	(S)	(S)	70	40	(X)
2385	WATERPROOF OUTERGARMENTS	.8	3.2	.6	1.3	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2386	LEATHER, SHEEP LINED CLOTHING	.2	1.2	.1	.3	(D)	(D)	-	-	(D)	(Z)	(X)	(X)	1
2387	APPAREL BELTS	.6	2.5	.5	.9	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2389	APPAREL AND ACCESSORIES, NEC	.3	1.3	.2	.4	(D)	(D)	-	-	-	-	(X)	(X)	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977—Con.								1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]—
		Coke and breeze		Natural gas				Electric energy				
								Purchased				
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	N
21	TOBACCO PRODUCTS	-	-	2.3	4.2	.2	(D)	1,250.1	32.8	(D)	20.2	54.8	2
2111	CIGARETTES	-	-	(D)	(D)	(D)	(Z)	817.8	20.0	(D)	12.0	30.6	(X)
2121	CIGARS	-	-	.2	.3	-	(D)	69.1	2.1	-	.7	2.8	1
2131	CHEWING AND SMOKING TOBACCO	-	-	(D)	(D)	(Z)	(D)	44.9	1.4	-	.9	2.5	(X)
2141	TOBACCO STEMMING AND REDRYING	-	-	.3	.5	(D)	(D)	318.4	9.4	(S)	6.5	18.9	4
22	TEXTILE MILL PRODUCTS	(Z)	(Z)	78.0	134.6	34.2	35.8	27,609.5	643.7	438.8	336.7	1,009.0	2
2211	WEAVING MILLS, COTTON	-	-	5.7	9.7	.7	.6	4,750.4	107.3	193.8	33.4	113.7	1
2221	WEAVING MILLS, MANMADE FIBER	-	-	7.1	12.6	3.0	2.4	6,441.3	139.3	72.8	53.5	187.7	1
2231	WEAVING, FINISHING MILLS, WOOL	-	-	(S)	(S)	(D)	(D)	271.3	7.4	(D)	6.4	18.6	(X)
2241	NARROW FABRIC MILLS	-	-	.7	1.2	(D)	1.0	428.2	10.2	(S)	3.9	14.8	26
225	KNITTING MILLS	-	-	11.3	22.0	(D)	(D)	3,744.3	90.5	(S)	56.8	167.4	4
2251	WOMEN'S HOSIERY, EXCEPT SOCKS	-	-	.7	1.2	.2	.9	474.3	11.2	(D)	4.8	17.4	20
2252	HOSIERY, NEC	-	-	1.0	1.7	(D)	(D)	308.2	7.8	(D)	3.6	12.0	17
2253	KNIT OUTERWEAR MILLS	-	-	1.4	3.0	.7	4.4	595.8	16.6	(S)	9.5	30.9	4
2254	KNIT UNDERWEAR MILLS	-	-	(D)	(D)	(D)	.8	217.4	5.5	-	3.5	9.4	(X)
2257	CIRCULAR KNIT FABRIC MILLS	-	-	4.7	9.5	(D)	(D)	1,396.1	31.8	(S)	23.6	64.2	8
2258	WARP KNIT FABRIC MILLS	-	-	2.0	4.1	1.4	(D)	741.3	17.1	(S)	11.5	32.3	6
2259	KNITTING MILLS, NEC	-	-	(D)	(D)	(Z)	(D)	11.2	.4	-	.3	1.3	(X)
226	TEXTILE FINISHING, EXCEPT WOOL	-	-	21.2	40.2	12.6	2.9	2,014.5	52.0	173.6	75.7	164.2	5
2261	FINISHING PLANTS, COTTON	-	-	7.7	12.9	6.0	(D)	476.5	13.2	40.9	26.2	53.7	5
2262	FINISH. PLTS, MANMADE FIBER	-	-	(S)	(S)	(S)	(S)	1,103.5	27.3	132.7	41.3	88.2	(X)
2269	FINISHING PLANTS, NEC	-	-	2.1	3.9	.8	(D)	434.5	11.5	-	8.2	22.3	4
227	FLOOR COVERING MILLS	-	-	14.2	23.2	1.7	(D)	1,104.2	30.3	(D)	30.9	68.6	6
2271	WOVEN CARPETS AND RUGS	-	-	.2	.2	-	(D)	43.8	1.0	-	2.1	5.5	3
2272	TUFTED CARPETS AND RUGS	-	-	13.7	22.3	1.7	6.2	1,019.6	27.9	(D)	28.1	60.9	6
2279	CARPETS AND RUGS, NEC	-	-	.3	.6	-	(D)	40.9	1.3	-	.7	2.3	12
228	YARN AND THREAD MILLS	-	-	5.2	9.1	1.9	2.2	6,734.8	151.0	(D)	45.1	177.8	2
2281	YARN MILLS, EXCEPT WOOL	-	-	3.5	5.9	.9	(D)	4,536.0	102.7	(D)	23.7	103.6	1
2282	THROWING AND WINDING MILLS	-	-	.8	1.5	(D)	1.1	1,623.9	34.4	-	15.9	58.4	5
2283	WOOL YARN MILLS	-	-	.1	.1	.1	(D)	87.3	2.6	-	1.7	6.2	23
2284	THREAD MILLS	-	-	.8	1.6	(D)	(D)	487.6	11.4	-	3.8	12.6	9
229	MISCELLANEOUS TEXTILE GOODS	-	-	8.1	15.6	3.1	(D)	2,127.4	55.6	(D)	31.0	96.2	3
2291	FELT GOODS, EXC. WOVEN AND HATS	-	-	.5	.9	(D)	.2	76.2	2.3	(D)	1.3	3.9	1
2292	LACE GOODS	-	-	(D)	(D)	-	(D)	22.0	.7	-	.7	1.9	(X)
2293	PADDINGS AND UPHOLSTERY FILLING	-	-	(D)	(D)	(Z)	1.0	100.7	3.5	-	1.8	5.4	(X)
2294	PROCESSED TEXTILE WASTE	-	-	.2	.3	(D)	.2	89.7	2.3	-	.8	3.2	41
2295	COATED FABRICS, NOT RUBBERIZED	-	-	2.5	5.5	.8	(D)	336.7	9.9	-	9.9	27.3	5
2296	TIRE CORD AND FABRIC	-	-	1.7	2.8	(D)	(Z)	842.2	17.2	(D)	4.7	18.5	1
2297	NONWOVEN FABRICS	-	-	2.0	3.7	(D)	.9	340.4	10.0	(S)	5.8	17.1	2
2298	CORDAGE AND TWINE	-	-	(D)	(D)	-	(D)	173.7	4.9	(D)	1.5	5.9	(X)
2299	TEXTILE GOODS, NEC	-	-	.1	.2	(D)	(D)	134.9	4.8	(D)	4.4	12.8	1
23	APPAREL, OTH. TEXTILE PRODS.	(D)	(D)	15.2	27.0	4.4	(D)	6,619.9	200.6	(S)	62.0	245.3	5
2311	MEN'S AND BOYS' SUITS AND COATS	-	-	1.4	2.8	(D)	2.0	430.0	14.5	(Z)	5.3	20.8	12
232	MEN'S AND BOYS' FURNISHINGS	(D)	(D)	3.2	5.1	.7	6.4	1,707.6	48.5	(S)	12.7	52.9	4
2321	MEN'S, BOYS' SHIRTS, NIGHTWEAR	(D)	(D)	(D)	(D)	(D)	1.0	508.5	14.9	(D)	3.0	14.3	(X)
2322	MEN'S AND BOYS' UNDERWEAR	-	-	(D)	(D)	(Z)	(D)	57.5	1.5	(Z)	.5	2.0	(X)
2323	MEN'S AND BOYS' NECKWEAR	-	-	(Z)	(Z)	(D)	(Z)	32.2	1.0	-	.3	1.1	1
2327	MEN'S, BOYS' SEPARATE TROUSERS	-	-	.9	1.2	(D)	(D)	319.9	9.0	(Z)	3.6	13.8	7
2328	MEN'S AND BOYS' WORK CLOTHING	-	-	1.2	2.0	.2	1.6	574.6	15.9	(D)	3.3	13.7	3
2329	MEN'S AND BOYS' CLOTHING, NEC	-	-	.4	.6	(D)	(D)	214.9	6.1	(D)	2.0	8.1	21
233	WOMEN'S AND MISSES' OUTERWEAR	-	-	(S)	(S)	(S)	(S)	1,938.0	62.4	(S)	16.1	73.0	(X)
2331	WOMEN'S, MISSES' BLOUSES	-	-	(S)	(S)	.1	(D)	371.0	12.1	(S)	3.1	12.0	(X)
2335	WOMEN'S AND MISSES' DRESSES	-	-	(S)	(S)	(D)	(S)	577.0	21.2	(S)	6.8	31.0	(X)
2337	WOMEN'S, MISSES' SUITS, COATS	-	-	(S)	(S)	(D)	(S)	497.9	14.7	(S)	2.8	14.5	(X)
2339	WOMEN'S, MISSES' OUTERWEAR, NEC	-	-	(S)	(S)	(D)	(D)	492.2	14.4	(S)	3.3	15.5	(X)
234	WOMEN'S, CHILDREN'S UNDERGARMS	-	-	.7	1.4	(D)	(D)	510.3	14.8	(D)	2.9	14.4	3
2341	WOMEN'S, CHILDREN'S UNDERWEAR	-	-	(D)	(D)	(D)	(D)	431.7	12.0	(D)	2.3	10.9	(X)
2342	BRASSIERES AND ALLIED GARMENTS	-	-	(D)	(D)	(Z)	.2	78.6	2.8	-	.6	3.5	(X)
235	HATS, CAPS, AND MILLINERY	-	-	.2	.4	(Z)	(D)	57.0	2.0	-	1.3	3.8	13
2351	MILLINERY	-	-	-	-	-	.2	7.2	.3	-	.1	.3	(X)
2352	HATS AND CAPS, EXCEPT MILLINERY	-	-	.2	.4	(Z)	(D)	49.8	1.8	-	1.1	3.5	13
236	CHILDREN'S OUTERWEAR	-	-	.4	.6	(D)	(D)	321.0	9.2	.5	2.5	11.2	17
2361	CHILDREN'S DRESSES AND BLOUSES	-	-	(S)	(S)	(D)	(D)	155.4	4.8	-	1.4	5.2	(X)
2363	CHILDREN'S COATS AND SUITS	-	-	.1	.1	(Z)	(D)	28.9	.8	.5	.1	.6	48
2369	CHILDREN'S OUTERWEAR, NEC	-	-	(S)	(S)	-	(D)	136.8	3.7	(Z)	1.0	5.4	(X)
2371	FUR GOODS	-	-	(Z)	(Z)	-	(S)	33.0	.9	-	.4	1.1	1
238	MISC. APPAREL AND ACCESSORIES	-	-	.7	1.4	.1	1.7	250.4	8.0	.5	2.3	9.6	20
2381	FABRIC DRESS AND WORK GLOVES	-	-	.3	.7	(D)	(D)	41.5	1.2	-	.4	1.5	36
2384	ROBES AND DRESSING GOWNS	-	-	(D)	(D)	-	(D)	39.5	1.3	.5	.3	1.2	(X)
2385	WATERPROOF OUTERGARMENTS	-	-	(D)	(D)	-	(S)	60.4	2.0	-	.6	2.7	(X)
2386	LEATHER, SHEEP LINED CLOTHING	-	-	(Z)	.1	(D)	(D)	31.6	1.0	-	.3	1.3	48
2387	APPAREL BELTS	-	-	(Z)	.1	(Z)	(D)	53.0	1.6	-	.3	1.6	6
2389	APPAREL AND ACCESSORIES, NEC	-	-	.1	.2	-	(D)	24.4	.9	(Z)	.3	1.4	28

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	I	J	F	H	J
23	APPAREL, OTH. TEXTILE PRODS--CON.													
239	MISC. FABRICATED TEXTILE PRODS	18.6	67.5	13.9	27.2	155.8	2.5	354.3	5.2	32.6	1.3	14	9	7
2391	CURTAINS AND DRAPERIES	1.6	7.0	1.0	1.8	13.5	.2	(D)	(D)	-	-	18	(X)	(X)
2392	HOUSEFURNISHINGS, NEC	8.8	26.5	7.3	13.9	84.9	1.3	(D)	(D)	(D)	(D)	24	(X)	(X)
2393	TEXTILE BAGS	.8	2.7	.6	1.1	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2394	CANVAS AND RELATED PRODUCTS	.8	2.9	.6	1.1	(D)	(Z)	(D)	(D)	(D)	(Z)	49	(X)	58
2395	PLEATING AND STITCHING	1.2	5.7	.8	1.7	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2396	AUTOMOTIVE, APPAREL TRIMMINGS	2.6	11.3	1.9	3.8	29.4	.5	(D)	(D)	(D)	(D)	15	(X)	(X)
2397	SCHIFFLI MACHINE EMBROIDERIES	.3	1.5	.2	.4	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2399	FABRICATED TEXTILE PRODS., NEC	2.5	10.0	1.8	3.5	16.0	.3	28.6	.5	-	-	29	9	(X)
24	LUMBER AND WOOD PRODUCTS	227.7	726.5	172.6	361.0	5,767.5	96.3	2,429.6	34.3	(D)	(D)	5	6	(X)
2411	LOGGING CAMPS, LOG CONTRACTORS	33.9	85.6	32.6	78.6	2,298.8	38.0	(D)	(D)	-	-	10	(X)	(X)
242	SAWMILLS AND PLANING MILLS	68.5	287.0	45.6	96.8	2,081.1	35.9	(D)	(D)	2.2	.1	8	(X)	12
2421	SAWMILLS, PLANING MILLS, GENERAL	63.3	228.7	42.4	89.9	1,945.3	33.5	453.4	6.4	(D)	(D)	9	11	(X)
2426	HARDWOOD DIMENSION AND FLOORING	4.4	19.7	2.7	5.9	110.6	2.0	(D)	(D)	(D)	(D)	29	(X)	(X)
2429	SPECIAL PRODUCT SAWMILLS, NEC	.7	2.6	.4	1.0	25.2	.4	(D)	(Z)	-	-	54	83	(X)
243	MILLWORK, PLYWOOD, STRUC. MEMBS.	56.1	167.4	39.2	76.0	404.9	6.6	370.9	5.3	(D)	(D)	9	6	(X)
2431	MILLWORK	8.0	32.5	4.9	9.6	79.6	1.4	7.5	.1	5.8	.2	9	39	1
2434	WOOD KITCHEN CABINETS	4.8	17.2	3.3	6.8	56.1	.9	(D)	(D)	(D)	(D)	22	(X)	(X)
2435	HARDWOOD VENEER AND PLYWOOD	5.8	19.8	4.2	8.2	91.5	1.5	59.3	.9	(D)	(D)	37	26	(X)
2436	SOFTWOOD VENEER AND PLYWOOD	33.7	92.4	25.5	48.8	170.1	2.7	272.9	3.8	(D)	(D)	2	2	(X)
2439	STRUCTURAL WOOD MEMBERS, NEC	1.7	5.5	1.4	2.7	7.6	.1	(D)	(D)	-	-	48	(X)	(X)
244	WOOD CONTAINERS	5.4	20.7	4.0	8.5	143.4	2.5	(D)	(D)	(D)	(D)	31	(X)	(X)
2441	NAILED WOOD BOXES AND SHOOK	1.2	4.3	.8	1.5	9.1	.1	(D)	(D)	(D)	(Z)	7	(X)	91
2448	WOOD PALLETS AND SKIDS	3.2	12.3	2.4	5.6	115.8	2.0	(D)	(D)	(D)	(D)	38	(X)	(X)
2449	WOOD CONTAINERS, NEC	1.0	4.1	.7	1.4	18.4	.3	(D)	(D)	(Z)	(Z)	31	(X)	1
245	WOOD BUILDINGS AND MOBILE HOMES	5.9	21.2	4.5	8.9	83.0	1.4	6.6	.1	(D)	(Z)	5	1	57
2451	MOBILE HOMES	3.1	12.2	2.2	4.1	15.9	.3	(D)	(D)	-	-	6	(X)	(X)
2452	PREFABRICATED WOOD BUILDINGS	2.8	9.0	2.2	4.8	67.1	1.1	(D)	(D)	(D)	(Z)	6	(X)	(X)
249	MISCELLANEOUS WOOD PRODUCTS	59.9	184.6	46.8	92.2	756.3	12.0	1,199.6	16.5	90.9	3.4	5	4	2
2491	WOOD PRESERVING	9.5	22.9	8.8	17.1	269.9	4.4	(D)	(D)	(D)	(D)	9	(X)	(X)
2492	PARTICLEBOARD	8.8	31.0	5.5	10.3	(S)	(S)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2499	WOOD PRODUCTS, NEC	41.6	130.8	32.5	64.9	416.7	6.5	931.3	13.0	(D)	(D)	6	2	(X)
25	FURNITURE AND FIXTURES	52.7	198.3	38.5	76.1	905.1	15.0	444.8	6.8	111.5	4.3	5	5	4
251	HOUSEHOLD FURNITURE	31.0	121.7	21.4	43.1	719.3	11.9	275.0	4.2	95.3	3.7	6	6	2
2511	WOOD HOUSEHOLD FURNITURE	15.8	64.4	10.5	21.9	484.5	7.6	142.0	2.2	66.0	2.8	6	10	3
2512	UPHOLSTERED HOUSEHOLD FURNITURE	5.6	22.2	3.9	8.0	111.8	1.9	27.4	.5	6.9	.3	13	30	13
2514	METAL HOUSEHOLD FURNITURE	3.7	13.6	2.8	5.5	82.8	1.4	29.5	.5	(D)	(Z)	27	11	1
2515	MATTRESSES AND BEDSPRINGS	2.9	10.0	2.3	4.4	37.5	.7	(D)	(D)	(D)	(D)	26	(X)	(X)
2517	WOOD TV AND RADIO CABINETS	1.0	4.3	.8	1.1	(D)	(D)	(D)	(Z)	(D)	(D)	(X)	1	(X)
2519	HOUSEHOLD FURNITURE, NEC	1.9	7.1	1.3	2.2	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
252	OFFICE FURNITURE	6.7	24.1	5.1	10.2	62.5	1.1	(D)	(D)	(D)	(D)	5	(X)	(X)
2521	WOOD OFFICE FURNITURE	1.7	6.5	1.2	2.3	36.0	.6	(D)	(D)	(D)	(D)	7	(X)	(X)
2522	METAL OFFICE FURNITURE	5.0	17.6	3.9	7.8	26.6	.5	(D)	(D)	-	-	7	(X)	(X)
2531	PUBLIC BLDG., RELATED FURNITURE	3.1	10.2	2.4	4.2	(S)	(S)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
254	PARTITIONS AND FIXTURES	8.3	29.2	6.6	12.8	69.6	1.2	20.7	.3	3.9	.2	23	21	43
2541	WOOD PARTITIONS AND FIXTURES	2.6	10.7	1.9	3.9	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2542	METAL PARTITIONS AND FIXTURES	5.7	18.5	4.7	9.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
259	MISC. FURNITURE AND FIXTURES	3.7	13.2	2.9	5.8	39.3	.6	(D)	(D)	(D)	(Z)	19	(X)	76
2591	DRAPERY HDWE., BLINDS, SHADES	1.6	5.8	1.2	2.5	11.2	.2	(D)	(D)	-	-	1	(X)	(X)
2599	FURNITURE AND FIXTURES, NEC	2.2	7.4	1.7	3.3	28.1	.5	(D)	(D)	(D)	(Z)	25	(X)	76
26	PAPER AND ALLIED PRODUCTS	1,308.4	2,980.4	1,156.3	2,036.6	5,733.2	88.5	75,227.3	969.1	8,662.8	260.3	2	1	1
2611	PULPMILLS	95.4	197.4	84.7	150.4	338.3	5.4	(D)	(D)	(D)	(D)	11	(X)	(X)
2621	PAPERMILLS, EXC. BUILDING PAPER	587.5	1,294.2	518.9	884.8	1,799.9	27.6	29,740.0	389.7	5,312.6	161.6	2	1	1
2631	PAPERBOARD MILLS	482.8	989.6	446.3	781.7	1,766.4	26.2	32,886.4	418.2	2,926.3	86.8	2	1	3
264	MISC. CONVERTED PAPER PRODUCTS	58.0	218.5	41.2	83.7	668.1	10.6	(D)	(D)	(D)	(D)	5	(X)	(X)
2641	PAPER COATING AND GLAZING	16.8	55.3	13.4	28.0	296.6	4.7	456.1	6.5	15.3	.6	7	7	1
2642	ENVELOPES	2.4	12.2	1.4	2.7	21.3	.4	(D)	(D)	-	-	30	(X)	(X)
2643	BAGS, EXCEPT TEXTILE BAGS	9.6	43.9	4.8	9.0	71.7	1.2	77.9	1.1	18.0	.5	12	2	1
2645	DIE-CUT PAPER AND BOARD	2.9	9.0	2.4	4.4	(D)	(D)	121.7	1.4	-	-	(X)	1	(X)
2646	PRESSED AND MOLDED PULP GOODS	7.6	23.7	5.7	10.8	77.5	1.3	(D)	(D)	(D)	(D)	1	(X)	(X)
2647	SANITARY PAPER PRODUCTS	11.4	41.2	8.1	15.9	42.0	.6	390.9	5.4	(D)	(D)	7	1	(X)
2648	STATIONERY PRODUCTS	1.3	5.2	.9	1.7	(D)	(D)	17.8	.3	-	-	(X)	1	(X)
2649	CONVERTED PAPER PRODUCTS, NEC	6.0	24.0	4.6	11.3	116.9	1.8	(D)	(D)	(D)	(D)	16	(X)	(X)
265	PAPERBOARD CONTAINERS AND BOXES	55.1	191.3	43.4	88.4	1,010.7	16.3	1,071.7	15.9	33.5	1.0	4	4	1
2651	FOLDING PAPERBOARD BOXES	7.8	30.2	5.6	10.8	(D)	(D)	133.6	2.0	(D)	(D)	(X)	13	(X)
2652	SETUP PAPERBOARD BOXES	1.3	4.6	1.0	1.9	28.7	.5	20.7	.3	-	-	53	52	(X)
2653	CORRUGATED, SOLID FIBER BOXES	36.8	116.4	30.7	62.7	750.0	12.1	758.4	11.3	9.5	.3	5	4	3
2654	SANITARY FOOD CONTAINERS	6.5	28.9	4.1	8.9	99.6	1.6	116.9	1.7	-	-	2	2	(X)
2655	FIBER CANS, DRUMS, SIMILAR PROD.	2.8	11.1	2.1	4.1	(D)	(D)	42.0	.6	(D)	(D)	(X)	8	(X)
2661	BUILDING PAPER AND BOARD MILLS	29.5	73.4	25.8	47.5	149.9	2.4	1,075.6	15.4	(D)	(D)	20	3	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977--Con.								1976, purchased fuels and electric energy		Standard error of estimate (percent) for col- umn 1/
		Coke and breeze		Natural gas		Fuels not specified by kind		Electric energy				
								Purchased				
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)		Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (tril- lions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	X
23	APPAREL, OTH. TEXTILE PRODS--CON.												
239	MISC. FABRICATED TEXTILE PRODS	-	-	6.3	11.4	1.4	5.5	1,372.2	40.3	1.6	18.6	58.5	7
2391	CURTAINS AND DRAPERIES	-	-	.3	.5	(D)	.8	187.6	5.2	(Z)	1.8	6.8	27
2392	HOUSEFURNISHINGS, NEC	-	-	3.0	5.0	(D)	2.8	463.9	12.6	(D)	8.7	22.7	4
2393	TEXTILE BAGS	-	-	.2	.5	(Z)	(D)	62.0	1.6	-	.8	2.7	23
2394	CANVAS AND RELATED PRODUCTS	-	-	.4	.7	(Z)	(D)	64.9	1.8	-	.6	1.8	26
2395	PLEATING AND STITCHING	-	-	.6	1.2	(Z)	(D)	119.3	4.0	(S)	.9	3.9	52
2396	AUTOMOTIVE, APPAREL TRIMMINGS	-	-	1.0	2.1	(D)	.1	221.0	7.5	-	2.6	9.6	9
2397	SCHIFFLI MACHINE EMBROIDERIES	-	-	.1	.1	-	(D)	30.0	1.2	-	.3	1.8	48
2399	FABRICATED TEXTILE PRODS., NEC	-	-	.8	1.4	(D)	(D)	223.5	6.5	1.0	3.0	9.7	12
24	LUMBER AND WOOD PRODUCTS	-	-	64.0	112.2	84.4	(D)	16,125.5	365.5	298.5	235.7	640.0	2
2411	LOGGING CAMPS, LOG CONTRACTORS	-	-	(D)	(D)	31.5	4.7	371.4	6.9	(D)	38.9	87.6	(X)
242	SAWMILLS AND PLANING MILLS	-	-	16.3	25.6	23.8	(D)	6,704.0	150.2	178.0	74.6	226.5	6
2421	SAWMILLS, PLANING MILLS, GENERAL	-	-	15.5	24.3	(D)	(D)	6,127.3	134.8	177.6	68.2	203.2	7
2426	HARDWOOD DIMENSION AND FLOORING	-	-	(D)	(D)	.4	1.3	497.9	13.8	(D)	4.9	18.8	(X)
2429	SPECIAL PRODUCT SAWMILLS, NEC	-	-	(D)	(D)	(D)	.3	78.9	1.6	(D)	1.5	4.5	(X)
243	MILLWORK, PLYWOOD, STRUC. MEMBS.	-	-	22.3	40.3	(D)	7.5	4,347.3	91.4	54.0	53.8	143.2	3
2431	MILLWORK	-	-	2.6	4.7	1.0	2.3	905.0	22.8	(D)	9.5	30.7	11
2434	WOOD KITCHEN CABINETS	-	-	1.2	2.2	(D)	2.5	416.4	10.4	-	3.9	12.3	13
2435	HARDWOOD VENEER AND PLYWOOD	-	-	2.4	4.3	(D)	.4	488.7	11.7	-	5.7	16.7	11
2436	SOFTWOOD VENEER AND PLYWOOD	-	-	15.7	28.4	(D)	1.3	2,423.8	43.6	(D)	33.0	78.8	2
2439	STRUCTURAL WOOD MEMBERS, NEC	-	-	.4	.8	(D)	1.0	113.5	2.8	(D)	1.7	4.8	12
244	WOOD CONTAINERS	-	-	(D)	(D)	1.9	(D)	425.4	12.3	(D)	4.1	14.4	(X)
2441	NAILED WOOD BOXES AND SHOOK	-	-	(D)	(D)	.4	(D)	112.1	2.8	(D)	1.0	3.5	(X)
2448	WOOD PALLETS AND SKIDS	-	-	.4	.7	(D)	(D)	223.3	6.7	-	1.6	5.1	20
2449	WOOD CONTAINERS, NEC	-	-	(D)	(D)	(D)	.4	90.0	2.8	(D)	1.5	5.8	(X)
245	WOOD BUILDINGS AND MOBILE HOMES	-	-	2.0	3.6	(D)	(D)	419.6	12.3	(Z)	5.9	18.1	4
2451	MOBILE HOMES	-	-	1.4	2.4	(D)	(D)	268.1	8.1	(Z)	3.4	11.3	3
2452	PREFABRICATED WOOD BUILDINGS	-	-	.7	1.2	(D)	(D)	151.5	4.2	-	2.5	6.8	10
249	MISCELLANEOUS WOOD PRODUCTS	-	-	21.9	39.9	10.2	10.2	3,857.8	92.4	65.4	58.5	150.1	3
2491	WOOD PRESERVING	-	-	4.1	6.5	.6	(S)	188.8	5.8	-	8.4	17.1	13
2492	PARTICLEBOARD	-	-	(D)	(D)	(S)	(S)	994.7	20.7	-	8.3	24.7	(X)
2499	WOOD PRODUCTS, NEC	-	-	(D)	(D)	8.3	7.4	2,674.3	65.9	65.4	41.8	108.3	(X)
25	FURNITURE AND FIXTURES	-	-	18.0	32.2	5.5	12.4	4,190.3	122.3	(S)	99.7	168.2	3
251	HOUSEHOLD FURNITURE	-	-	7.0	12.0	2.7	8.7	2,803.2	78.5	(S)	30.3	107.8	4
2511	WOOD HOUSEHOLD FURNITURE	-	-	2.6	4.4	1.1	3.9	1,534.1	42.5	(D)	16.6	61.1	8
2512	UPHOLSTERED HOUSEHOLD FURNITURE	-	-	1.3	2.4	.4	2.6	516.5	14.3	(D)	5.6	19.4	5
2514	METAL HOUSEHOLD FURNITURE	-	-	1.5	2.5	(D)	(D)	271.8	8.1	(D)	3.4	10.7	6
2515	MATTRESSES AND BEDSPRINGS	-	-	1.2	2.0	(D)	.9	179.6	5.7	(D)	2.7	8.5	9
2517	WOOD TV AND RADIO CABINETS	-	-	.3	.4	(D)	.3	121.6	3.2	-	1.0	3.8	12
2519	HOUSEHOLD FURNITURE, NEC	-	-	.2	.3	(Z)	(D)	179.7	4.9	(D)	.9	4.3	2
252	OFFICE FURNITURE	-	-	(D)	(D)	.5	1.5	450.3	14.0	(D)	6.4	19.7	(X)
2521	WOOD OFFICE FURNITURE	-	-	(D)	(D)	.3	.4	130.3	4.2	-	1.4	5.1	(X)
2522	METAL OFFICE FURNITURE	-	-	(D)	(D)	.3	1.1	320.0	9.8	(D)	5.0	14.5	(X)
2531	PUBLIC BLDG., RELATED FURNITURE	-	-	(D)	(D)	(D)	(S)	198.3	6.0	(D)	2.7	8.1	(X)
254	PARTITIONS AND FIXTURES	-	-	4.4	8.2	1.4	1.5	507.0	16.4	(Z)	7.3	22.7	6
2541	WOOD PARTITIONS AND FIXTURES	-	-	.8	1.5	.4	1.3	199.3	6.8	(D)	2.8	9.9	15
2542	METAL PARTITIONS AND FIXTURES	-	-	3.6	6.8	1.0	.2	307.7	9.6	(S)	4.6	12.8	6
259	MISC. FURNITURE AND FIXTURES	-	-	1.5	2.7	(D)	.9	231.6	7.4	-	3.0	9.9	8
2591	DRAPERY HDWE., BLINDS, SHADES	-	-	.6	1.2	-	(D)	106.2	3.3	-	1.4	4.7	8
2599	FURNITURE AND FIXTURES, NEC	-	-	.9	1.5	(D)	(D)	125.4	4.1	-	1.6	5.2	14
26	PAPER AND ALLIED PRODUCTS	-	-	350.0	590.1	102.4	26.2	44,559.8	923.8	27,383.5	1,300.2	2,526.6	1
2611	PULPMILLS	-	-	17.6	25.2	5.2	(S)	3,126.2	47.0	2,762.0	98.0	176.8	1
2621	PAPERMILLS, EXC. BUILDING PAPER	-	-	150.5	257.7	39.2	9.1	21,292.0	409.4	13,080.2	592.3	1,118.0	1
2631	PAPERBOARD MILLS	-	-	129.5	208.9	(S)	(S)	10,694.1	207.9	11,445.5	487.4	826.4	1
264	MISC. CONVERTED PAPER PRODUCTS	-	-	18.1	35.7	9.7	5.5	4,925.2	130.8	(D)	55.6	169.5	11
2641	PAPER COATING AND GLAZING	-	-	6.2	12.1	3.2	.8	1,004.0	27.3	(D)	10.6	46.0	4
2642	ENVELOPES	-	-	.5	1.0	(D)	.9	291.5	9.5	(D)	2.4	10.8	5
2643	BAGS, EXCEPT TEXTILE BAGS	-	-	3.0	5.5	.7	(Z)	1,398.1	34.9	3.0	8.3	28.2	11
2645	DIE-CUT PAPER AND BOARD	-	-	1.2	1.9	(D)	.1	152.5	4.7	(D)	3.4	8.5	29
2646	PRESSED AND MOLDED PULP GOODS	-	-	2.5	4.2	(D)	.8	557.3	12.9	(D)	8.1	20.8	1
2647	SANITARY PAPER PRODUCTS	-	-	2.1	3.9	(D)	1.4	998.3	25.3	32.6	10.2	31.9	1
2648	STATIONERY PRODUCTS	-	-	.3	.5	(D)	.7	109.6	3.5	-	1.4	5.4	15
2649	CONVERTED PAPER PRODUCTS, NEC	-	-	2.3	6.5	.8	.8	417.9	12.7	(D)	5.3	18.0	55
265	PAPERBOARD CONTAINERS AND BOXES	-	-	19.6	37.9	4.9	12.4	3,424.0	102.9	(D)	52.9	162.8	2
2651	FOLDING PAPERBOARD BOXES	-	-	2.5	4.9	.6	1.4	638.4	19.4	(D)	6.8	24.3	6
2652	SETUP PAPERBOARD BOXES	-	-	.4	.6	.2	.4	87.9	2.7	(D)	1.3	4.6	51
2653	CORRUGATED, SOLID FIBER BOXES	-	-	14.2	27.2	3.3	8.5	1,787.9	53.7	(S)	34.7	96.5	2
2654	SANITARY FOOD CONTAINERS	-	-	1.7	3.7	.4	1.4	689.0	20.0	(D)	7.3	27.6	2
2655	FIBER CANS, DRUMS, SIMILAR PROD.	-	-	.8	1.6	.4	.8	220.9	7.0	(D)	2.9	9.8	11
2661	BUILDING PAPER AND BOARD MILLS	-	-	14.6	24.7	(D)	(D)	1,098.3	25.9	40.6	35.8	73.1	1

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
	A	A	B	C	D	E	F	G	H	I	J	F	H	J
27	PRINTING AND PUBLISHING	92.3	421.7	56.3	113.8	1,020.7	16.9	447.2	6.7	(D)	(D)	7	5	(X)
2711	NEWSPAPERS	19.9	100.8	11.1	22.4	162.3	2.8	79.4	1.2	(D)	(D)	10	7	(X)
2721	PERIODICALS	2.6	13.0	1.5	3.1	13.7	.2	15.0	.2	-	-	39	1	(X)
273	BOOKS	7.7	34.0	4.7	9.7	115.4	1.9	60.9	.9	-	-	7	2	(X)
2731	BOOK PUBLISHING	2.4	11.0	1.5	3.0	22.1	.4	(D)	(D)	-	-	8	(X)	(X)
2732	BOOK PRINTING	5.3	23.0	3.2	6.7	93.2	1.5	(D)	(D)	-	-	8	(X)	(X)
2741	MISCELLANEOUS PUBLISHING	2.1	11.7	1.0	2.2	22.4	.4	(D)	(D)	(D)	(Z)	23	(X)	93
275	COMMERCIAL PRINTING	46.8	196.4	30.3	60.7	547.9	8.9	180.9	2.7	(D)	(D)	11	9	(X)
2751	COMMERCIAL PRINTING, LETTERPRESS	14.1	61.0	9.0	18.0	170.2	2.6	16.2	.3	(D)	(D)	14	27	(X)
2752	COMMERCIAL PRINTING, LITHOGRAPH	26.1	108.5	16.5	32.5	207.5	3.6	(D)	(D)	(D)	(D)	26	(X)	(X)
2753	ENGRAVING AND PLATE PRINTING	.9	4.3	.5	1.1	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2754	COMMERCIAL PRINTING, GRAVURE	5.7	20.7	4.3	9.1	(D)	(D)	74.0	1.1	(D)	(D)	(X)	1	(X)
2761	MANIFOLD BUSINESS FORMS	4.7	24.0	2.5	5.2	59.7	1.0	32.9	.5	-	-	4	22	(X)
2771	GREETING CARD PUBLISHING	1.5	7.1	.8	1.6	15.6	.2	(D)	(D)	-	-	1	(X)	(X)
278	BLANKBOOKS AND BOOKBINDING	3.7	17.3	2.4	5.2	56.0	1.0	28.7	.4	-	-	35	17	(X)
2782	BLANKBOOKS, LOOSELEAF BINDERS	2.3	10.6	1.5	3.2	31.1	.5	(D)	(D)	-	-	49	(X)	(X)
2789	BOOKBINDING AND RELATED WORK	1.5	6.8	.9	2.0	24.9	.4	(D)	(D)	-	-	51	(X)	(X)
279	PRINTING TRADE SERVICES	3.4	19.3	1.9	3.7	27.7	.5	2.0	(Z)	-	-	31	1	(X)
2791	TYPESETTING	1.3	7.5	.7	1.2	(D)	(D)	(D)	(Z)	-	-	(X)	1	(X)
2793	PHOTOENGRAVING	.4	2.5	.2	.3	(D)	(D)	-	-	-	-	(X)	(X)	(X)
2794	ELECTROTYPING AND STEREOTYPING	(Z)	.2	(Z)	.1	-	-	-	-	-	-	(X)	(X)	(X)
2795	LITHOGRAPH PLATEMAKING SERVICES	1.7	9.2	1.0	2.1	19.9	.3	(D)	(Z)	-	-	35	1	(X)
28	CHEMICALS, ALLIED PRODUCTS	2,978.5	6,448.7	2,469.7	3,727.7	20,411.9	362.4	45,540.9	613.4	13,061.9	380.9	1	1	1
281	INDUSTRIAL INORGANIC CHEMICALS	669.3	1,878.9	390.9	592.9	3,920.8	60.9	6,696.2	87.1	2,817.9	84.3	2	1	1
2812	ALKALIES AND CHLORINE	126.9	327.4	88.0	144.2	466.9	7.1	(D)	(D)	1,349.0	42.9	1	(X)	1
2813	INDUSTRIAL GASES	73.9	301.7	30.6	46.1	332.2	4.7	-	-	(D)	(D)	9	(X)	(X)
2816	INORGANIC PIGMENTS	46.3	108.7	41.3	75.3	1,185.9	18.3	(D)	(D)	(D)	(D)	5	(X)	(X)
2819	INDUSTRIAL INORGANIC CHEM., NEC	422.2	1,141.1	230.9	327.3	1,935.9	30.7	3,829.5	56.3	997.8	27.9	3	1	1
282	PLASTICS MATERIALS, SYNTHETICS	432.6	1,024.1	369.2	638.7	(D)	(D)	(D)	(D)	4,392.1	129.7	(X)	(X)	1
2821	PLASTICS MATERIALS AND RESINS	182.7	478.7	151.3	283.7	2,135.5	32.3	4,310.1	59.3	775.4	21.5	1	1	1
2822	SYNTHETIC RUBBER	43.5	95.7	39.0	71.3	67.2	1.1	483.5	5.6	(D)	(D)	1	1	(X)
2823	CELLULOSIC MANMADE FIBERS	58.4	84.8	56.7	74.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2824	ORGANIC FIBERS, NONCELLULOSIC	147.9	364.9	122.1	209.7	711.9	11.0	7,587.7	100.6	1,838.0	58.2	1	1	1
283	DRUGS	70.8	225.5	57.5	115.5	998.8	15.1	3,805.4	54.2	317.2	11.4	2	1	1
2831	BIOLOGICAL PRODUCTS	3.2	13.6	2.3	3.9	31.2	.5	(D)	(D)	-	-	6	(X)	(X)
2833	MEDICINALS AND BOTANICALS	28.2	72.1	25.1	48.6	532.3	7.6	(D)	(D)	(D)	(D)	3	(X)	(X)
2834	PHARMACEUTICAL PREPARATIONS	39.3	139.8	30.1	63.0	435.3	6.9	(D)	(D)	(D)	(D)	2	(X)	(X)
284	SOAPS, CLEANERS, TOILET GOODS	46.5	136.9	39.8	78.6	798.6	12.6	1,363.0	20.1	105.7	3.4	5	5	5
2841	SOAP AND OTHER DETERGENTS	25.4	66.5	22.7	43.1	370.0	5.7	(D)	(D)	(D)	(D)	2	(X)	(X)
2842	POLISHES AND SANITATION GOODS	5.2	17.5	4.0	7.5	84.3	1.4	64.8	.9	-	-	32	1	(X)
2843	SURFACE ACTIVE AGENTS	9.6	26.3	8.7	18.5	207.6	3.3	363.9	5.3	-	-	9	5	(X)
2844	TOILET PREPARATIONS	6.3	26.6	4.5	9.5	136.7	2.2	(D)	(D)	(D)	(D)	4	(X)	(X)
2851	PAINTS AND ALLIED PRODUCTS	19.3	60.0	15.9	28.8	277.6	4.6	233.2	3.4	-	-	5	5	(X)
286	INDUSTRIAL ORGANIC CHEMICALS	1,277.9	2,252.4	1,177.0	1,682.4	(D)	(D)	(D)	(D)	4,128.5	114.4	(X)	(X)	1
2861	GUM AND WOOD CHEMICALS	10.1	23.4	9.5	18.8	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
2865	CYCLIC CRUDES AND INTERMEDIATES	171.9	384.7	152.0	271.6	1,299.9	20.3	5,046.1	70.7	557.7	18.5	10	1	1
2869	INDUS. ORGANIC CHEMICALS, NEC	1,095.9	1,844.3	1,015.5	1,392.0	6,114.3	81.4	10,660.4	141.3	3,570.8	95.9	1	2	1
287	AGRICULTURAL CHEMICALS	347.9	639.3	314.4	429.5	3,199.6	49.0	2,188.7	28.0	(D)	(D)	2	7	(X)
2873	NITROGENOUS FERTILIZERS	251.5	421.1	233.8	317.1	2,134.0	32.7	1,121.9	14.9	(D)	(D)	1	12	(X)
2874	PHOSPHATIC FERTILIZERS	64.8	137.1	53.1	60.0	714.8	10.7	989.6	12.0	(D)	(Z)	1	1	1
2875	FERTILIZERS, MIXING ONLY	4.9	15.7	4.0	7.9	127.3	2.1	22.9	.3	-	-	1	2	(X)
2879	AGRICULTURAL CHEMICALS, NEC	26.7	65.4	23.5	44.5	223.5	3.4	54.3	.7	(D)	(D)	12	22	(X)
289	MISCELLANEOUS CHEMICAL PRODUCTS	114.2	231.5	105.1	161.3	668.0	10.6	1,734.9	23.6	(D)	(D)	13	4	(X)
2891	ADHESIVES AND SEALANTS	8.1	25.8	6.8	14.4	(D)	(D)	(D)	(D)	(Z)	(Z)	(X)	(X)	1
2892	EXPLOSIVES	16.9	32.9	15.4	22.7	200.3	3.1	(D)	(D)	(D)	(D)	1	(X)	(X)
2893	PRINTING INK	5.0	9.8	2.4	4.0	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	1
2895	CARBON BLACK	29.5	49.9	27.2	36.0	-	-	(D)	(D)	-	-	(X)	(X)	(X)
2899	CHEMICAL PREPARATIONS, NEC	56.7	113.0	53.2	84.1	242.7	4.0	1,185.8	15.8	562.6	17.7	20	3	4
29	PETROLEUM AND COAL PRODUCTS	1,303.4	2,445.4	1,200.5	1,805.7	3,840.7	59.3	9,700.9	133.5	183.6	5.2	7	3	8
	PETROLEUM REFINING	1,222.8	2,297.1	1,125.7	1,658.4	(D)	(D)	8,010.8	109.1	(D)	(D)	(X)	1	(X)
	PAVING AND ROOFING MATERIALS	66.6	105.1	61.9	123.3	(D)	(D)	1,576.6	22.7	(D)	(D)	(X)	13	(X)
	PAVING MIXTURES AND BLOCKS	36.0	93.9	33.5	69.3	1,776.2	28.2	419.1	6.2	-	-	13	41	(X)
2952	ASPHALT FELTS AND COATINGS	30.7	71.2	28.5	54.0	(D)	(D)	1,157.5	16.4	(D)	(D)	(X)	7	(X)
299	MISC. PETROLEUM, COAL PRODUCTS	13.9	33.3	12.9	24.0	400.1	6.1	113.4	1.7	(D)	(D)	14	17	(X)
2992	LUBRICATING OILS AND GREASES	6.2	17.7	5.6	11.6	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
2999	PETROLEUM, COAL PRODUCTS, NEC	7.7	15.6	7.3	12.4	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
30	RUBBER, MISC. PLASTICS PROD.	272.3	982.4	195.3	382.1	3,181.7	49.8	7,508.4	104.9	910.6	24.3	2	2	1
3011	TIRES AND INNER TUBES	82.8	236.8	64.8	113.6	888.1	13.4	3,548.4	49.3	469.6	11.5	1	1	1
3021	RUBBER AND PLASTICS FOOTWEAR	2.1	8.5	1.6	3.6	62.9	1.0	75.3	1.1	-	-	1	1	(X)
3031	RECLAIMED RUBBER	1.1	3.3	.8	1.1	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977—Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]—
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	N
27	PRINTING AND PUBLISHING.	-	-	28.4	53.4	13.7	(D)	10,553.7	307.9	6.2	88.8	362.6	4
2711	NEWSPAPERS	-	-	5.5	10.2	6.1	(D)	2,591.7	78.4	(S)	18.5	88.8	12
2721	PERIODICALS.	-	-	.4	.7	.4	1.6	298.8	9.9	(S)	3.3	14.5	11
273	BOOKS.	-	-	2.2	4.2	(D)	(D)	869.3	24.2	(D)	7.2	27.5	6
2731	BOOK PUBLISHING.	-	-	.7	1.2	(D)	(D)	267.6	7.9	-	2.5	9.6	12
2732	BOOK PRINTING.	-	-	1.5	2.9	(D)	1.8	601.7	16.3	(D)	4.7	17.8	6
2741	MISCELLANEOUS PUBLISHING	-	-	.3	.6	(Z)	(D)	314.1	9.5	(S)	1.8	8.2	4
275	COMMERCIAL PRINTING.	-	-	16.5	31.2	(D)	11.8	4,826.7	133.7	(S)	45.9	170.3	5
2751	COMMERCIAL PRINTING, LETTERPRESS. .	-	-	5.2	10.3	(D)	3.7	1,501.7	42.9	(S)	15.6	58.6	6
2752	COMMERCIAL PRINTING, LITHOGRAPH. .	-	-	9.4	17.5	2.8	6.7	2,803.1	76.0	(S)	24.0	91.2	7
2753	ENGRAVING AND PLATE PRINTING . . .	-	-	.2	.5	(Z)	.3	96.0	3.1	(Z)	.9	3.3	28
2754	COMMERCIAL PRINTING, GRAVURE . . .	-	-	1.6	3.0	1.5	1.0	425.8	11.6	(Z)	5.4	17.1	3
2761	MANIFOLD BUSINESS FORMS.	-	-	1.3	2.5	(D)	(D)	655.4	18.9	(S)	4.3	18.5	7
2771	GREETING CARD PUBLISHING	-	-	.5	.9	(D)	.1	184.4	5.5	.2	1.3	5.4	9
278	BLANKBOOKS AND BOOKBINDING	-	-	.7	1.5	(D)	(D)	374.5	12.1	(S)	3.2	13.7	10
2782	BLANKBOOKS, LOOSELEAF BINDERS, . .	-	-	.5	1.0	(D)	(D)	225.6	7.4	(Z)	1.9	7.9	8
2789	BOOKBINDING AND RELATED WORK . . .	-	-	.2	.4	(D)	.8	148.9	4.8	(S)	1.3	5.8	27
279	PRINTING TRADE SERVICES.	-	-	.9	1.7	.2	1.3	438.9	15.6	1.6	3.2	15.7	16
2791	TYPESETTING.	-	-	.3	.4	(D)	(D)	174.4	6.3	-	1.2	6.6	46
2793	PHOTOENGRAVING	-	-	.1	.1	-	(D)	59.1	2.2	-	.6	3.5	6
2794	ELECTROTYPING AND STEREOTYPING . .	-	-	(Z)	(Z)	-	.1	4.3	.1	-	.1	.5	1
2795	LITHOGRAPH PLATEMAKING SERVICES. .	-	-	.6	1.1	(D)	(D)	201.0	7.1	1.6	1.2	5.2	16
28	CHEMICALS, ALLIED PRODUCTS . . .	(D)	(D)	1,484.0	2,049.4	301.1	(D)	149,140.9	2,721.0	12,942.6	2,989.3	5,430.6	1
281	INDUSTRIAL INORGANIC CHEMICALS . .	(D)	(D)	230.5	331.6	16.8	(D)	81,594.7	1,286.0	4,012.6	706.4	1,697.5	1
2812	ALKALIES AND CHLORINE.	(Z)	(Z)	36.7	71.0	(D)	(D)	11,395.9	183.2	1,885.5	145.7	311.9	1
2813	INDUSTRIAL GASES	-	-	23.8	34.6	(D)	3.9	12,679.7	255.5	(D)	90.7	202.8	2
2816	INORGANIC PIGMENTS	(D)	(D)	13.8	25.8	.8	(D)	1,450.6	33.5	(D)	14.8	35.4	2
2819	INDUSTRIAL INORGANIC CHEM., NEC. .	(D)	(D)	156.2	200.2	(D)	3.7	56,068.3	813.8	2,033.7	423.2	1,027.4	1
282	PLASTICS MATERIALS, SYNTHETICS . .	-	-	104.2	192.2	79.8	7.9	18,583.3	385.4	(D)	401.4	812.3	1
2821	PLASTICS MATERIALS AND RESINS, . .	-	-	64.5	121.0	43.2	6.4	9,196.6	195.0	6.3	171.0	376.1	1
2822	SYNTHETIC RUBBER	-	-	(D)	(D)	18.8	.7	1,330.2	24.4	-	41.0	81.5	(X)
2823	CELLULOSIC MANMADE FIBERS.	-	-	(D)	(D)	(Z)	.2	503.5	10.8	(D)	56.7	71.6	(X)
2824	ORGANIC FIBERS, NONCELLULOSIC. . .	-	-	13.0	21.7	17.7	.5	7,552.9	155.2	682.1	132.6	280.1	1
283	DRUGS.	(Z)	(Z)	12.2	22.5	(D)	(D)	3,898.8	109.9	158.7	67.1	187.7	2
2831	BIOLOGICAL PRODUCTS.	-	-	.8	1.4	(D)	(D)	275.4	9.7	-	2.7	9.8	6
2833	MEDICINALS AND BOTANICALS.	(Z)	(Z)	2.8	4.6	1.1	(D)	919.7	23.5	(D)	26.1	60.4	3
2834	PHARMACEUTICAL PREPARATIONS. . . .	-	-	8.6	16.4	7.3	.6	2,703.7	76.8	(D)	38.3	117.4	3
284	SOAPS, CLEANERS, TOILET GOODS. . .	-	-	18.1	34.1	(D)	(D)	1,960.6	58.3	(D)	49.0	123.5	2
2841	SOAP AND OTHER DETERGENTS.	-	-	11.2	20.4	.9	(D)	790.9	23.4	(D)	25.0	55.3	2
2842	POLISHES AND SANITATION GOODS, . .	-	-	1.8	3.5	.1	1.6	334.2	10.0	.5	7.4	22.2	14
2843	SURFACE ACTIVE AGENTS.	-	-	3.6	7.2	(D)	(D)	286.7	7.9	(D)	10.4	25.4	4
2844	TOILET PREPARATIONS.	-	-	1.5	3.1	.4	.8	548.8	17.1	(Z)	6.2	22.6	4
2851	PAINTS AND ALLIED PRODUCTS	-	-	5.3	10.1	(D)	(D)	1,014.8	31.2	(D)	18.6	52.2	4
286	INDUSTRIAL ORGANIC CHEMICALS . . .	-	-	805.2	1,052.1	(D)	(S)	29,582.1	570.0	6,218.5	1,251.0	1,831.3	1
2861	GUM AND WOOD CHEMICALS	-	-	2.6	4.3	(D)	.7	179.3	4.7	32.1	8.9	17.5	11
2865	CYCLIC CRUDES AND INTERMEDIATES. .	-	-	74.4	119.0	38.1	5.0	5,828.5	113.1	199.8	171.8	325.7	1
2869	INDUS. ORGANIC CHEMICALS, NEC. . .	-	-	728.2	928.8	(S)	(S)	23,578.2	452.3	6,026.6	1,070.4	1,488.1	1
287	AGRICULTURAL CHEMICALS	-	-	258.0	330.9	(D)	(D)	9,818.3	209.8	643.0	385.2	532.7	3
2873	NITROGENOUS FERTILIZERS.	-	-	198.5	257.9	2.5	(D)	5,194.9	104.0	428.4	289.7	339.2	3
2874	PHOSPHATIC FERTILIZERS	-	-	40.6	35.3	.8	1.0	3,413.8	77.2	(D)	63.6	126.4	1
2875	FERTILIZERS, MIXING ONLY	-	-	1.5	2.7	1.8	1.0	203.5	7.8	.6	4.4	12.5	1
2879	AGRICULTURAL CHEMICALS, NEC. . . .	-	-	17.5	35.0	(D)	(D)	948.0	20.9	(D)	27.4	54.7	3
289	MISCELLANEOUS CHEMICAL PRODUCTS. .	-	-	50.5	75.9	(D)	16.7	2,688.3	70.2	177.7	110.6	191.4	3
2891	ADHESIVES AND SEALANTS	-	-	4.2	8.3	(D)	.1	376.5	11.5	(D)	8.8	22.7	1
2892	EXPLOSIVES	-	-	4.1	5.6	(D)	.6	443.4	10.2	(D)	19.4	32.5	1
2893	PRINTING INK	-	-	(D)	(D)	.1	2.0	183.8	5.8	-	2.7	8.0	(X)
2895	CARBON BLACK	-	-	(D)	(D)	.1	(Z)	658.7	13.9	(D)	28.2	36.1	(X)
2899	CHEMICAL PREPARATIONS, NEC	-	-	19.8	26.6	8.0	14.1	1,025.9	28.9	139.8	51.5	92.0	3
29	PETROLEUM AND COAL PRODUCTS. . .	(D)	(D)	1,051.0	1,546.3	27.0	(D)	30,153.2	639.7	4,516.7	1,304.8	2,108.2	1
2911	PETROLEUM REFINING	-	-	1,016.4	1,486.0	(D)	18.9	28,482.4	588.7	(D)	1,229.2	1,954.5	1
295	PAVING AND ROOFING MATERIALS . . .	(D)	(D)	25.6	44.9	(D)	15.0	1,373.2	41.8	(D)	62.9	129.0	6
2951	PAVING MIXTURES AND BLOCKS	(D)	(D)	9.3	16.9	(D)	12.2	736.3	24.6	(Z)	33.8	74.6	14
2952	ASPHALT FELTS AND COATINGS	-	-	16.1	28.0	(D)	2.8	636.9	17.2	(D)	29.1	54.4	4
299	MISC. PETROLEUM, COAL PRODUCTS . .	-	-	9.1	15.5	.2	(D)	297.6	9.2	-	12.7	24.7	7
2992	LUBRICATING OILS AND GREASES . . .	-	-	(D)	(D)	(D)	(S)	181.1	6.0	-	5.4	12.5	(X)
2999	PETROLEUM, COAL PRODUCTS, NEC. . .	-	-	(D)	(D)	(D)	1.4	116.5	3.2	-	7.4	12.2	(X)
30	RUBBER, MISC. PLASTICS PROD. . .	-	-	71.3	124.4	14.1	44.7	22,556.9	600.3	423.9	250.3	765.3	2
3011	TIRES AND INNER TUBES.	-	-	23.6	38.0	.9	.6	5,288.0	123.2	(D)	75.1	180.8	1
3021	RUBBER AND PLASTICS FOOTWEAR . . .	-	-	.6	.8	(Z)	.6	155.9	4.9	(S)	2.4	9.0	1
3031	RECLAIMED RUBBER	-	-	(D)	(D)	-	(D)	93.5	2.1	-	.9	2.6	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	I	J	F	H	J
30	RUBBER, MISC. PLASTICS PROD--CON.													
304	RUBBER, PLASTICS HOSE, BELTING--CON.													
3041	RUBBER, PLASTICS HOSE, BELTING	13.9	37.0	11.2	17.6	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3069	FABRICATED RUBBER PRODUCTS, NEC.	33.1	109.2	25.6	49.6	533.3	8.7	699.5	10.2	(D)	(D)	8	4	(X)
3079	MISCELLANEOUS PLASTICS PRODUCTS.	139.3	567.7	91.4	176.6	1,517.8	24.0	2,825.1	39.4	230.7	6.3	3	5	2
31	LEATHER, LEATHER PRODUCTS.	23.1	82.6	18.2	36.8	367.3	5.9	842.5	11.9	44.4	1.0	10	11	16
3111	LEATHER TANNING AND FINISHING.	13.8	37.0	12.6	24.7	185.6	2.9	735.6	10.3	38.9	.8	18	12	19
3131	BOOT, SHOE CUT STOCK, FINDINGS	1.0	3.5	.8	1.5	16.9	.3	17.8	.3	(D)	(D)	27	9	(X)
314	FOOTWEAR, EXCEPT RUBBER.	5.2	27.8	2.9	6.6	116.2	2.0	76.2	1.2	(D)	(D)	8	2	(X)
3142	HOUSE SLIPPERS	.3	1.7	.2	.5	8.6	.1	(D)	(D)	-	-	22	(X)	(X)
3143	MEN'S FOOTWEAR, EXCEPT ATHLETIC.	2.1	11.2	1.2	2.6	38.0	.7	38.0	.6	(D)	(D)	2	4	(X)
3144	WOMEN'S FOOTWEAR, EXC. ATHLETIC.	1.9	10.2	1.1	2.5	53.3	.9	24.7	.4	.9	(Z)	16	1	1
3149	FOOTWEAR, EXCEPT RUBBER, NEC	.8	4.7	.5	1.0	16.3	.3	(D)	(D)	(D)	(Z)	20	(X)	55
3151	LEATHER GLOVES AND MITTENS	*	1.4	.3	.5	(D)	(D)	-	-	-	-	(X)	(X)	(X)
3161	LUGGAGE.	1.1	4.5	.7	1.3	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
317	WOMEN'S HANDBAGS AND PURSES.	1.1	6.1	.6	1.2	10.3	.2	(D)	(D)	(D)	(Z)	36	(X)	65
3171	WOMEN'S HANDBAGS AND PURSES.	.6	3.2	.3	.6	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	65
3172	PERSONAL LEATHER GOODS, NEC.	.5	2.9	.3	.6	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3199	LEATHER GOODS, NEC	.6	2.2	.4	1.0	(D)	(D)	-	-	(D)	(Z)	(X)	(X)	87
32	STONE, CLAY, GLASS PRODUCTS.	1,251.8	2,587.4	1,146.3	1,825.4	13,893.2	225.1	13,075.0	168.4	13,147.6	359.3	3	5	1
3211	FLAT GLASS	59.8	135.5	55.4	105.1	815.4	12.2	(D)	(D)	(D)	(D)	1	(X)	(X)
322	GLASS, PRESSED OR BLOWN.	212.3	525.4	189.0	363.3	3,438.5	55.1	2,398.6	33.4	(D)	(Z)	1	4	1
3221	GLASS CONTAINERS	144.5	380.9	128.8	250.4	2,482.5	39.9	1,896.8	26.6	(D)	(Z)	1	1	1
3229	PRESSED AND BLOWN GLASS, NEC	67.8	144.5	60.2	112.9	(S)	(S)	(S)	(S)	-	-	(X)	(X)	(X)
3231	PRODUCTS OF PURCHASED GLASS.	14.8	43.0	12.1	20.7	40.5	.6	(D)	(D)	-	-	12	(X)	(X)
3241	CEMENT, HYDRAULIC.	453.1	732.9	419.5	503.5	727.5	11.8	5,842.1	68.4	10,567.5	277.8	13	1	1
325	STRUCTURAL CLAY PRODUCTS	116.0	226.6	110.8	184.2	2,052.8	32.1	178.4	2.7	62.1	1.9	10	13	1
3251	BRICK AND STRUCTURAL CLAY TILE	70.0	131.5	67.0	107.0	1,096.1	17.1	(D)	(D)	(D)	(D)	18	(X)	(X)
3253	CERAMIC WALL AND FLOOR TILE.	6.8	15.3	6.3	11.7	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3255	CLAY REFRACTORIES.	21.0	47.5	19.8	38.2	829.1	12.9	(D)	(D)	(D)	(Z)	6	(X)	1
3259	STRUCTURAL CLAY PRODUCTS, NEC.	18.2	32.3	17.6	27.3	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
326	POTTERY AND RELATED PRODUCTS	25.7	61.1	23.5	44.0	261.3	4.3	(D)	(D)	(D)	(D)	5	(X)	(X)
3261	VITREOUS PLUMBING FIXTURES	8.8	20.9	8.1	15.5	80.3	1.3	(D)	(D)	-	-	1	(X)	(X)
3262	VITREOUS CHINA FOOD UTENSILS	3.0	7.6	2.8	6.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3263	FINE EARTHENWARE FOOD UTENSILS	2.0	4.9	1.9	3.7	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3264	PORCELAIN ELECTRICAL SUPPLIES.	6.0	15.8	5.2	9.2	69.5	1.2	(D)	(D)	(D)	(D)	10	(X)	(X)
3269	POTTERY PRODUCTS, NEC.	5.9	11.9	5.6	9.6	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
327	CONCRETE, GYPSUM, PLASTER PRODS.	222.9	466.4	210.8	366.5	4,676.8	78.8	1,854.5	25.6	2,109.6	67.0	6	30	4
3271	CONCRETE BLOCK AND BRICK	14.3	34.7	13.1	24.5	302.8	5.2	91.4	1.3	(D)	(D)	25	37	(X)
3272	CONCRETE PRODUCTS, NEC	20.3	49.1	18.7	34.7	490.9	8.0	140.0	2.1	(D)	(D)	12	21	(X)
3273	READY-MIXED CONCRETE	43.7	119.9	40.2	89.1	2,474.0	42.9	155.7	2.5	(D)	(D)	10	30	(X)
3274	LIME	98.2	160.3	95.4	139.5	308.6	4.9	1,202.7	16.2	2,033.4	64.7	8	47	4
3275	GYPSUM PRODUCTS.	46.5	102.5	43.5	78.8	1,100.5	17.6	264.7	3.5	49.7	1.3	1	1	1
3281	CUT STONE AND STONE PRODUCTS	3.9	13.3	3.0	5.6	98.1	1.5	(D)	(D)	(D)	(D)	21	(X)	(X)
329	MISC. NONMETALLIC MINERAL PRODS.	143.3	383.1	122.2	232.6	1,790.3	28.7	1,770.8	24.0	386.5	12.0	5	3	17
3291	ABRASIVE PRODUCTS.	14.5	45.4	10.2	20.3	127.2	2.0	(D)	(D)	(D)	(D)	2	(X)	(X)
3292	ASBESTOS PRODUCTS.	9.4	30.3	7.6	15.2	137.1	2.2	234.3	3.5	(D)	(D)	2	3	(X)
3293	GASKETS, PACK'G, SEAL'G DEVICES.	5.8	20.9	4.2	7.8	77.5	1.2	(D)	(D)	(D)	(D)	12	(X)	(X)
3295	MINERALS, GROUND OR TREATED.	33.0	75.5	30.1	52.2	562.6	9.1	(D)	(D)	(D)	(D)	14	(X)	(X)
3296	MINERAL WOOL	54.9	152.2	46.7	95.4	455.1	7.3	138.3	1.9	(D)	(D)	1	1	(X)
3297	NONCLAY REFRACTORIES	17.3	39.9	15.9	28.8	303.8	4.7	86.5	1.3	(D)	(D)	7	29	(X)
3299	NONMETAL. MINERAL PRODUCTS, NEC.	8.3	19.0	7.6	12.8	127.0	2.2	(D)	(D)	-	-	10	(X)	(X)
33	PRIMARY METAL INDUSTRIES	2,539.4	7,043.6	2,001.2	4,296.7	12,448.4	194.2	41,304.7	60.3	5,167.8	161.5	1	1	1
331	BLAST FURNACE, BASIC STEEL PROD.	1,629.8	4,510.0	1,429.8	3,189.4	7,074.9	110.2	36,973.3	502.8	4,254.9	132.8	1	1	1
3312	BLAST FURNACES AND STEEL MILLS	1,519.2	4,160.1	1,359.0	3,058.1	6,400.9	99.0	36,643.8	498.0	3,519.4	109.0	1	1	1
3313	ELECTROMETALLURGICAL PRODUCTS.	57.6	171.3	(S)	(S)	(S)	(S)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3315	STEEL WIRE AND RELATED PRODUCTS.	14.5	52.1	11.0	22.1	182.7	2.9	(D)	(D)	(D)	(Z)	4	(X)	1
3316	COLD FINISHING OF STEEL SHAPES	17.6	64.0	14.6	36.8	149.5	2.7	51.8	.8	(D)	(D)	2	1	(X)
3317	STEEL PIPE AND TUBES	20.8	62.5	17.7	38.0	290.9	4.8	63.9	.9	(D)	(D)	2	2	(X)
332	IRON AND STEEL FOUNDRIES	175.6	747.1	134.6	419.0	847.0	13.7	373.3	5.6	102.4	4.1	4	6	1
3321	GRAY IRON FOUNDRIES.	122.1	548.5	97.1	342.4	426.5	7.0	255.7	3.9	40.3	1.6	7	6	3
3322	MALLEABLE IRON FOUNDRIES	17.0	63.0	11.8	28.6	136.3	2.2	(D)	(D)	(D)	(D)	1	(X)	(X)
3324	STEEL INVESTMENT FOUNDRIES	2.9	11.6	2.0	4.1	8.1	.2	(D)	(Z)	-	-	1	1	(X)
3325	STEEL FOUNDRIES, NEC	33.6	124.0	23.6	45.8	276.2	4.4	(D)	(D)	(D)	(D)	1	(X)	(X)
333	PRIMARY NONFERROUS METALS.	462.7	988.6	218.9	272.2	999.8	14.7	2,405.9	30.4	(D)	(D)	1	1	(X)
3331	PRIMARY COPPER	66.3	122.9	59.7	89.0	527.0	7.3	1,343.6	17.3	(D)	(D)	1	1	(X)
3332	PRIMARY LEAD	12.5	34.4	11.7	30.1	(D)	(D)	(D)	(Z)	(D)	(D)	(X)	1	(X)
3333	PRIMARY ZINC	25.5	51.6	21.6	30.6	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)

See footnotes at end of table.

Table 3. **Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976**—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977—Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for col.—[1]
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kwh)	Cost (million dollars)	Generated and sold (million kwh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	V
30	RUBBER, MISC. PLASTICS PROD--CON.												
304	RUBBER, PLASTICS HOSE, BELTING--CON.												
3041	RUBBER, PLASTICS HOSE, BELTING	-	-	(D)	(D)	(D)	(D)	784.1	19.9	(D)	13.8	39.4	(X)
3069	FABRICATED RUBBER PRODUCTS, NEC	-	-	(D)	(D)	(D)	5.7	2,192.1	59.6	2.9	30.6	86.7	(X)
3079	MISCELLANEOUS PLASTICS PRODUCTS	-	-	31.4	59.2	19.2	37.5	14,943.4	391.1	143.7	127.4	456.9	3
31	LEATHER, LEATHER PRODUCTS	-	-	5.8	10.0	2.4	5.6	1,418.8	45.9	14.7	22.6	71.7	5
3111	LEATHER TANNING AND FINISHING	-	-	3.6	6.5	1.0	3.2	378.8	12.4	(D)	13.1	31.0	6
3131	BOOT, SHOE CUT STOCK, FINDINGS	-	-	.3	.6	(D)	.2	65.6	2.0	-	.9	2.9	38
314	FOOTWEAR, EXCEPT RUBBER	-	-	.7	1.6	(D)	1.0	656.8	21.2	(D)	5.4	25.5	4
3142	HOUSE SLIPPERS	-	-	(Z)	.1	-	(D)	33.5	1.2	(D)	.4	1.7	13
3143	MEN'S FOOTWEAR, EXCEPT ATHLETIC	-	-	.4	.8	(D)	.4	278.3	8.6	(Z)	2.3	10.3	1
3144	WOMEN'S FOOTWEAR, EXC. ATHLETIC	-	-	.2	.4	.2	.2	236.4	7.7	(S)	.8	8.9	10
3149	FOOTWEAR, EXCEPT RUBBER, NEC	-	-	.1	.2	(D)	(D)	110.5	3.7	-	.9	4.8	28
3151	LEATHER GLOVES AND MITTENS	-	-	.1	.1	-	(D)	29.0	.8	-	.3	1.1	37
3161	LUGGAGE	-	-	(D)	(D)	.1	(D)	109.9	3.2	-	1.2	4.3	(X)
317	WOMEN'S HANDBAGS AND PURSES	-	-	(D)	(D)	(D)	.4	147.5	5.1	(D)	1.2	5.3	(X)
3171	WOMEN'S HANDBAGS AND PURSES	-	-	(Z)	(Z)	-	.3	73.6	2.7	(D)	.8	3.5	1
3172	PERSONAL LEATHER GOODS, NEC	-	-	(D)	(D)	(D)	(Z)	73.9	2.4	-	.4	1.7	(X)
3199	LEATHER GOODS, NEC	-	-	.2	.5	(D)	.1	37.3	1.2	-	.5	1.7	2
32	STONE, CLAY, GLASS PRODUCTS	373.2	23.9	513.5	890.3	72.8	65.7	30,924.4	762.0	452.5	1,226.9	2,167.8	2
3211	FLAT GLASS	-	-	42.2	77.6	1.4	2.4	1,297.7	30.4	(D)	53.7	99.8	1
322	GLASS, PRESSED OR BLOWN	-	-	185.3	284.5	9.4	.9	6,828.9	162.1	(D)	218.6	425.1	1
3221	GLASS CONTAINERS	-	-	96.9	177.9	(S)	(S)	4,592.5	110.6	(S)	147.5	292.0	1
3229	PRESSED AND BLOWN GLASS, NEC	-	-	(S)	(S)	(S)	(S)	2,236.3	51.5	(D)	57.1	133.1	(X)
3231	PRODUCTS OF PURCHASED GLASS	-	-	7.1	12.1	3.5	(D)	805.4	22.3	(D)	18.3	40.1	2
3241	CEMENT, HYDRAULIC	(D)	(D)	93.1	136.7	5.0	(D)	9,822.7	229.5	362.5	433.0	816.6	2
325	STRUCTURAL CLAY PRODUCTS	(D)	(Z)	73.8	115.5	6.7	27.4	1,519.7	42.6	(D)	111.7	190.6	8
3251	BRICK AND STRUCTURAL CLAY TILE	-	-	44.1	66.2	2.8	17.9	874.1	24.5	(Z)	62.5	103.3	12
3253	CERAMIC WALL AND FLOOR TILE	-	-	5.7	10.2	.7	(D)	137.3	3.6	-	6.5	12.3	14
3255	CLAY REFRACTORIES	(D)	(Z)	12.1	20.9	.9	(D)	347.1	9.3	(Z)	23.7	46.1	14
3259	STRUCTURAL CLAY PRODUCTS, NEC	-	-	11.5	18.2	.4	7.1	161.2	5.0	-	18.9	28.9	15
326	POTTERY AND RELATED PRODUCTS	-	-	15.9	29.8	2.6	4.9	837.3	17.1	(D)	26.7	56.4	5
3261	VITREOUS PLUMBING FIXTURES	-	-	6.0	11.1	(D)	.1	302.8	5.4	(D)	8.3	17.1	4
3262	VITREOUS CHINA FOOD UTENSILS	-	-	2.0	4.1	(D)	.2	55.8	1.7	-	2.8	5.7	1
3263	FINE EARTHENWARE FOOD UTENSILS	-	-	1.6	2.8	(D)	.2	36.9	1.2	(Z)	1.4	3.2	9
3264	PORCELAIN ELECTRICAL SUPPLIES	-	-	3.7	6.5	(D)	.9	245.8	6.6	-	6.0	13.6	5
3269	POTTERY PRODUCTS, NEC	-	-	2.8	5.3	.2	3.4	98.0	2.3	-	6.2	10.8	25
327	CONCRETE, GYPSUM, PLASTER PRODS.	(D)	(D)	72.3	122.7	35.3	(D)	3,561.3	99.9	(S)	217.9	406.1	3
3271	CONCRETE BLOCK AND BRICK	-	-	6.9	11.6	3.5	(D)	341.7	10.2	(D)	15.8	35.0	19
3272	CONCRETE PRODUCTS, NEC	-	-	7.6	11.8	(D)	6.5	488.8	14.4	-	20.9	45.8	7
3273	READY-MIXED CONCRETE	(D)	(D)	4.8	7.9	22.2	12.9	1,028.1	30.8	(S)	42.4	107.1	17
3274	LIME	(D)	(D)	22.5	39.8	.6	(D)	830.5	20.8	(S)	97.5	142.3	2
3275	GYPSUM PRODUCTS	(Z)	(Z)	30.9	51.8	(D)	(D)	895.3	23.8	(D)	41.5	75.8	1
3281	CUT STONE AND STONE PRODUCTS	(D)	(Z)	.1	.3	1.3	2.4	268.7	7.7	(D)	6.1	13.5	28
329	MISC. NONMETALLIC MINERAL PRODS.	168.2	18.4	79.0	131.1	10.6	7.8	6,182.9	150.5	49.8	148.9	325.6	2
3291	ABRASIVE PRODUCTS	-	-	5.3	10.0	(D)	1.1	1,252.2	25.1	(D)	12.7	36.2	5
3292	ASBESTOS PRODUCTS	(D)	(Z)	3.5	7.0	(D)	1.3	341.8	15.1	(D)	10.7	30.7	2
3293	GASKETS, PACK'G, SEALING DEVICES	-	-	1.8	3.1	.3	.6	479.0	13.1	(D)	5.8	17.4	7
3295	MINERALS, GROUND OR TREATED	(D)	(Z)	17.8	29.7	.7	2.2	859.0	23.2	(D)	37.4	67.1	4
3296	MINERAL WOOL	163.5	17.7	33.4	60.1	(D)	2.9	2,416.0	56.8	-	54.4	121.8	1
3297	NONCLAY REFRACTORIES	-	-	7.8	15.1	2.8	(D)	410.0	11.1	-	19.8	37.4	8
3299	NONMETAL. MINERAL PRODUCTS, NEC	(Z)	(Z)	4.3	6.2	.3	(D)	224.9	6.2	-	8.2	16.0	19
33	PRIMARY METAL INDUSTRIES	19,089.2	1,662.1	905.6	1,496.8	153.8	68.0	157,737.4	2,748.9	13,600.2	2,470.6	5,752.2	1
331	BLAST FURNACE, BASIC STEEL PROD.	16,632.6	1,361.0	536.6	934.2	102.3	29.1	58,613.2	1,320.6	7,072.1	1,393.4	3,638.4	1
3312	BLAST FURNACES AND STEEL MILLS	16,484.5	1,345.1	502.6	890.7	92.9	21.5	46,952.4	1,104.0	(D)	1,496.6	3,372.3	1
3313	ELECTROMETALLURGICAL PRODUCTS	(D)	(D)	(D)	(D)	(S)	(S)	8,847.2	132.9	(D)	54.0	140.5	(X)
3315	STEEL WIRE AND RELATED PRODUCTS	(D)	(D)	(D)	(D)	1.8	3.6	1,020.6	30.0	-	14.4	44.2	(X)
3316	COLD FINISHING OF STEEL SHAPES	99.1	12.2	9.2	18.5	(D)	(D)	847.4	27.2	(D)	16.3	48.0	1
3317	STEEL PIPE AND TUBES	-	-	12.2	23.9	(D)	(D)	905.6	26.4	(Z)	12.1	33.4	4
332	IRON AND STEEL FOUNDRIES	1,990.0	262.9	62.9	115.9	11.7	5.4	12,022.9	328.1	17.4	166.9	405.5	2
3321	GRAY IRON FOUNDRIES	1,942.1	256.1	34.6	65.9	6.2	1.9	7,316.9	204.1	(D)	114.3	433.6	2
3322	MALLEABLE IRON FOUNDRIES	(D)	(D)	7.4	14.2	1.0	(D)	1,520.2	36.3	-	10.0	56.2	1
3324	STEEL INVESTMENT FOUNDRIES	-	-	1.5	3.1	.7	.2	263.0	7.5	-	3.5	12.1	27
3325	STEEL FOUNDRIES, NEC	(D)	(D)	17.3	32.7	3.6	(D)	2,922.9	78.2	(D)	33.1	103.6	2
333	PRIMARY NONFERROUS METALS	(D)	(D)	157.9	180.0	8.2	5.8	71,475.1	716.4	6,592.5	442.5	835.7	1
3331	PRIMARY COPPER	(D)	(D)	39.6	58.2	3.4	4.9	1,926.1	33.9	(D)	69.5	111.8	1
3332	PRIMARY LEAD	(S)	(S)	(S)	(S)	(D)	(S)	252.9	4.2	(D)	13.3	32.8	7
3333	PRIMARY ZINC	(D)	(D)	(D)	(D)	(D)	(Z)	1,136.7	21.0	(D)	26.7	45.5	-

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	I	J	F	H	J
33	PRIMARY METAL INDUSTRIES--CON.													
333	PRIMARY NONFERROUS METALS--CON.													
3334	PRIMARY ALUMINUM	327.7	695.1	106.7	91.1	273.9	4.2	(D)	(D)	(D)	(D)	1	(X)	(X)
3339	PRIMARY NONFERROUS METALS, NEC	30.7	84.6	19.1	31.4	40.1	.8	(D)	(D)	66.3	2.5	1	(X)	1
3341	SECONDARY NONFERROUS METALS	36.9	90.2	34.2	67.6	885.6	14.0	256.0	2.6	(D)	(Z)	13	6	1
335	NONFERROUS ROLLING AND DRAWING	166.7	502.3	126.3	239.6	2,315.2	36.3	1,167.7	17.0	87.7	2.7	1	1	1
3351	COPPER ROLLING AND DRAWING	25.0	95.5	18.1	37.1	248.9	3.9	270.0	4.0	33.7	.9	1	1	1
3353	ALUMINUM SHEET, PLATE, AND FOIL	71.4	171.2	58.1	105.1	1,290.6	20.1	(D)	(D)	(D)	(D)	1	(X)	.(X)
3354	ALUMINUM EXTRUDED PRODUCTS	21.3	63.4	17.2	30.7	(D)	(D)	-	-	(D)	(D)	(X)	(X)	(X)
3355	ALUMINUM ROLLING, DRAWING, NEC	7.4	18.0	6.4	13.1	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3356	NONFER. ROLLING, DRAWING, NEC	12.8	41.1	9.0	17.8	132.1	2.2	30.1	.3	-	-	1	5	(X)
3357	NONFER. WIREDRAWING, INSULATING	28.9	113.0	17.5	35.8	341.1	5.3	489.0	7.3	-	-	4	1	(X)
336	NONFERROUS FOUNDRIES	40.5	120.0	33.3	62.2	217.5	3.5	(D)	(D)	(D)	(D)	14	(X)	(X)
3361	ALUMINUM FOUNDRIES	20.7	81.4	24.9	45.7	139.5	2.2	(D)	(D)	(D)	(D)	13	(X)	(X)
3362	BRASS, BRONZE, COPPER FOUNDRIES	4.8	15.3	2.9	5.9	59.8	1.0	(D)	(D)	-	-	42	(X)	(X)
3369	NONFERROUS FOUNDRIES, NEC	6.9	23.2	5.5	10.7	18.2	.3	(D)	(D)	-	-	22	(X)	(X)
339	MISC. PRIMARY METAL PRODUCTS	20.2	85.4	28.3	46.6	108.3	1.8	(D)	(D)	(D)	(D)	40	(X)	(X)
3398	METAL HEAT TREATING	21.9	57.1	18.0	34.2	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3399	PRIMARY METAL PRODUCTS, NEC	8.2	28.2	6.2	12.5	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
34	FABRICATED METAL PRODUCTS	395.3	1,348.7	385.2	803.4	4,671.7	76.2	3,542.3	51.7	413.7	14.1	3	3	3
341	METAL CANS, SHIPPING CONTAINERS	37.2	119.6	29.7	58.8	142.9	2.4	174.5	2.6	(D)	(D)	1	1	(X)
3411	METAL CANS	32.0	103.5	25.3	50.2	111.2	1.9	(D)	(D)	(D)	(D)	1	(X)	(X)
3412	METAL BARRELS, DRUMS, AND PAILS	5.2	16.1	4.4	8.5	31.6	.5	(D)	(D)	-	-	2	(X)	(X)
342	CUTLERY, HANDTOOLS AND HARDWARE	38.0	116.9	24.3	48.2	366.9	5.9	691.9	10.1	105.4	3.5	9	2	11
3421	CUTLERY	2.8	10.4	2.3	5.0	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3423	HAND AND EDGE TOOLS, NEC	10.9	35.8	8.8	17.1	176.9	2.8	(D)	(D)	(D)	(D)	7	(X)	(X)
3425	HANDSAWS AND SAW BLADES	1.1	3.4	.8	1.8	(S)	(S)	(S)	(S)	-	-	(X)	(X)	(X)
3429	HARDWARE, NEC	17.3	65.3	12.8	24.6	(D)	(D)	381.0	5.5	(D)	(D)	(X)	3	(X)
343	PLUMBING, HEATING, EXCEPT ELEC	13.7	45.9	11.0	23.5	205.6	3.4	164.6	2.3	12.9	.5	8	2	1
3431	METAL SANITARY WARE	6.0	15.7	5.2	10.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3432	PLUMBING FITTINGS, BRASS GOODS	3.1	12.7	2.1	4.0	38.3	.6	(D)	(D)	(D)	(Z)	5	(X)	1
3433	HEATING EQUIP., EXCEPT ELECTRIC	4.6	17.4	3.7	9.5	(D)	(D)	28.9	.4	(D)	(D)	(X)	1	(X)
344	FABRICATED STRUC. METAL PRODS.	70.4	249.2	52.4	101.3	799.9	13.3	318.7	4.9	17.8	.5	10	10	19
3441	FABRICATED STRUCTURAL METAL	14.1	52.6	10.2	20.3	178.2	3.0	34.4	.6	(D)	(D)	13	53	(X)
3442	METAL DOORS, SASH, AND TRIM	8.1	28.6	6.1	11.7	55.7	1.0	48.0	.7	(D)	(Z)	14	41	91
3443	FABR. PLATEWORK, BOILER SHOPS	25.2	86.8	19.0	37.4	368.0	6.1	183.4	2.8	(D)	(D)	19	7	(X)
3444	SHEET METALWORK	12.6	38.7	10.2	18.6	100.1	1.6	23.6	.3	-	-	15	41	(X)
3446	ARCHITECTURAL METALWORK	3.9	10.8	2.1	4.1	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	1
3448	PREFABRICATED METAL BUILDINGS	3.4	13.7	2.8	4.3	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3449	MISCELLANEOUS METALWORK	4.1	18.0	2.6	5.0	49.2	.8	(D)	(D)	-	-	12	(X)	(X)
345	SCREW MACHINE PROD., BOLTS, ETC.	21.6	82.7	16.0	33.1	202.2	3.4	189.7	2.9	(D)	(Z)	7	5	63
3451	SCREW MACHINE PRODUCTS	5.1	22.9	3.3	6.6	49.6	.9	(D)	(D)	(D)	(Z)	22	(X)	1
3452	BOLTS, NUTS, RIVETS, WASHERS	16.5	59.8	12.7	26.5	152.6	2.5	(D)	(D)	(D)	(Z)	6	(X)	98
346	METAL FORGINGS AND STAMPINGS	106.0	348.0	85.0	169.4	1,585.3	25.3	926.1	13.8	202.3	7.0	4	4	1
3462	IRON AND STEEL FORGINGS	87.9	123.4	43.4	87.9	1,056.5	16.9	440.6	6.6	(D)	(D)	8	8	(X)
3463	NONFERROUS FORGINGS	5.7	15.8	4.9	8.7	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3465	AUTOMOTIVE STAMPINGS	31.3	125.9	30.5	40.7	257.2	4.2	277.8	4.1	123.9	4.9	4	3	1
3466	CROWNS AND CLOSURES	2.5	8.7	1.9	4.0	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X)	1
3469	METAL STAMPINGS, NEC	18.7	69.2	14.2	28.0	218.7	3.5	(D)	(D)	(D)	(D)	8	(X)	(X)
347	METAL SERVICES, NEC	42.9	131.2	34.3	65.4	388.5	6.7	251.3	3.7	26.6	.9	22	26	7
3471	PLATING AND POLISHING	23.9	82.2	18.7	35.6	334.4	5.8	175.8	2.6	-	-	24	31	(X)
3479	METAL COATING, ALLIED SERVICES	19.0	49.0	15.6	29.8	54.1	.9	75.5	1.1	26.6	.9	37	44	7
348	ORDNANCE AND ACCESSORIES, NEC	19.0	60.7	14.8	28.0	367.5	5.7	588.6	7.9	(D)	(D)	3	1	(X)
3482	SMALL ARMS AMMUNITION	5.7	11.0	3.1	5.8	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3483	AMMUNITION, EXC. SMALL ARMS NEC	7.1	21.7	5.9	12.5	283.7	4.4	186.8	2.4	(D)	(D)	1	1	(X)
3484	SMALL ARMS	2.1	9.5	1.4	3.4	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)
3489	ORDNANCE AND ACCESSORIES NEC	4.1	18.5	4.4	6.3	29.4	.4	(D)	(D)	-	-	1	(X)	(X)
349	MISC. FABRICATED METAL PRODUCTS	52.5	197.6	37.7	75.7	618.9	10.2	237.0	3.5	35.8	1.1	9	13	4
3493	STEEL SPRINGS, EXCEPT WIRE	5.3	13.7	4.7	9.2	94.8	1.6	(D)	(D)	-	-	36	(X)	(X)
3494	VALVES AND PIPE FITTINGS	19.5	78.5	13.4	27.3	223.7	3.6	62.4	.9	31.7	1.0	3	3	1
3495	WIRE SPRINGS	2.6	11.2	1.9	4.1	(S)	(S)	(S)	(S)	-	-	(X)	(X)	(X)
3496	MISC. FABRICATED WIRE PRODUCTS	5.0	19.6	3.6	7.1	72.9	1.2	54.2	.8	(D)	(D)	39	31	(X)
3497	METAL FOIL AND LEAF	3.3	14.0	2.0	4.0	38.0	.6	(D)	(D)	(D)	(D)	10	(X)	(X)
3498	FABRICATED PIPE AND FITTINGS	4.7	17.6	3.6	7.4	57.0	1.0	(D)	(D)	(D)	(Z)	14	(X)	1
3499	FABRICATED METAL PRODUCTS, NEC	12.1	43.0	8.6	16.6	118.8	2.0	(D)	(D)	-	-	21	(X)	(X)
35	MACHINERY, EXCEPT ELECTRIC	339.6	1,368.0	242.5	471.7	3,434.2	57.0	3,432.7	50.6	704.7	22.3	3	2	1
351	ENGINES AND TURBINES	31.1	112.2	23.1	49.4	610.2	10.0	884.3	13.4	(D)	(D)	1	1	(X)
3511	TURBINES, TURB. GENERATOR SETS	8.7	34.7	6.6	15.9	129.9	2.2	649.0	10.0	-	-	1	1	(X)
3519	INTERNAL COMBUS. ENGINES, NEC	22.4	77.5	16.5	33.5	480.3	7.8	235.3	3.4	(D)	(D)	1	3	(X)
352	FARM AND GARDEN MACHINERY	39.0	115.2	31.9	59.3	317.0	5.0	202.6	2.9	157.3	4.5	6	15	1
3523	FARM MACHINERY AND EQUIPMENT	35.7	103.8	29.4	54.8	309.8	4.9	187.6	2.7	157.3	4.5	6	16	1
3524	LAWN AND GARDEN EQUIPMENT	3.4	11.4	2.8	4.5	7.2	.1	15.0	.2	-	-	1	1	(X)
353	CONSTRUCTION, RELATED MACHINERY	47.2	221.2	49.9	89.9	509.5	8.2	325.3	4.8	(D)	(D)	4	3	(X)
3531	CONSTRUCTION MACHINERY	38.7	119.8	29.7	50.7	253.1	4.2	146.8	2.1	249.2	7.5	6	2	1
3532	MINING MACHINERY	4.8	16.5	3.4	5.6	13.3	.2	(D)	(D)	(D)	(D)	22	(X)	(X)
3533	OILFIELD MACHINERY	11.8	39.9	7.9	15.4	(D)	(D)	-	-	-	-	(X)	(X)	(X)
3534	ELEVATORS AND MOVING STAIRWAYS	1.4	5.9	1.1	2.2	27.4	.3	(D)	(D)	-	-	5	(X)	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977—Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]—
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	B
33	PRIMARY METAL INDUSTRIES--CON.												
333	PRIMARY NONFERROUS METALS--CON.												
3334	PRIMARY ALUMINUM	-	-	(D)	(D)	2.0	.1	64,760.8	604.0	5,497.7	297.1	541.8	(X)
3339	PRIMARY NONFERROUS METALS, NEC	(D)	(D)	10.8	16.5	.4	.9	3,398.7	53.2	(S)	36.0	99.8	1
3341	SECONDARY NONFERROUS METALS	55.1	6.7	20.1	34.0	3.1	7.2	803.0	22.6	(D)	36.7	76.1	6
335	NONFERROUS ROLLING AND DRAWING	-	-	88.2	157.8	(D)	(S)	11,265.6	262.6	(S)	155.5	405.0	1
3351	COPPER ROLLING AND DRAWING	-	-	11.6	23.8	(S)	(D)	2,018.6	58.4	(D)	24.5	80.7	1
3353	ALUMINUM SHEET, PLATE, AND FOIL	-	-	45.1	75.7	(D)	(S)	3,890.7	66.2	(S)	67.4	133.4	1
3354	ALUMINUM EXTRUDED PRODUCTS	-	-	12.9	23.0	2.6	1.6	1,203.9	32.7	(S)	19.2	49.0	2
3355	ALUMINUM ROLLING, DRAWING, NEC	-	-	4.0	8.0	(D)	.3	297.1	4.9	-	8.1	17.4	2
3356	NONFER. ROLLING, DRAWING, NEC	-	-	5.5	10.5	1.6	3.3	1,099.8	23.3	(D)	12.7	36.0	2
3357	NONFER. WIREDRAWING, INSULATING	-	-	9.2	16.8	(D)	(D)	2,755.6	77.2	(D)	23.6	88.5	3
336	NONFERROUS FOUNDRIES	(D)	(D)	26.0	48.2	(D)	5.5	2,124.4	57.8	(D)	40.5	105.0	5
3361	ALUMINUM FOUNDRIES	(D)	(D)	20.7	37.9	2.2	(D)	1,406.5	35.8	(D)	29.0	76.3	6
3362	BRASS, BRONZE, COPPER FOUNDRIES	-	-	1.6	3.1	(D)	1.6	311.8	9.5	(S)	4.6	14.7	15
3369	NONFERROUS FOUNDRIES, NEC	-	-	3.7	7.2	(D)	(D)	406.1	12.5	(D)	7.0	19.9	11
339	MISC. PRIMARY METAL PRODUCTS	-	-	13.9	26.7	(D)	(S)	1,433.2	38.7	-	35.0	86.6	15
3398	METAL HEAT TREATING	-	-	11.6	22.2	3.8	7.9	855.2	23.0	-	22.8	50.7	18
3399	PRIMARY METAL PRODUCTS, NEC	-	-	(S)	(S)	(D)	3.4	578.0	15.7	-	12.2	35.9	(X)
34	FABRICATED METAL PRODUCTS	63.4	7.9	184.3	348.7	45.7	59.1	26,386.7	745.4	(S)	382.6	1,128.7	2
341	METAL CANS, SHIPPING CONTAINERS	-	-	22.3	44.0	6.7	(D)	2,190.6	60.9	(Z)	36.5	99.2	1
3411	METAL CANS	-	-	19.3	38.1	(D)	(D)	1,961.8	53.3	(Z)	31.4	85.4	1
3412	METAL BARRELS, DRUMS, AND PAILS	-	-	3.0	5.8	(D)	(D)	228.9	7.5	(Z)	5.1	13.7	3
342	CUTLERY, HANDTOOLS AND HARDWARE	-	-	12.3	23.9	1.6	3.2	2,260.5	68.7	(D)	31.2	99.6	4
3421	CUTLERY	-	-	.9	1.9	(Z)	(S)	146.5	5.4	(D)	2.6	9.4	20
3423	HAND AND EDGE TOOLS, NEC	-	-	5.0	9.2	.5	1.6	601.5	18.7	-	8.9	25.9	6
3425	HANDSAWS AND SAW BLADES	-	-	(S)	(S)	(S)	(S)	142.7	3.9	-	1.0	4.3	(X)
3429	HARDWARE, NEC	-	-	5.8	11.5	.9	1.3	1,369.8	40.7	(Z)	18.7	60.0	3
343	PLUMBING, HEATING, EXCEPT ELEC	33.9	4.4	5.6	9.7	(D)	(D)	804.7	22.4	11.4	14.0	39.3	4
3431	METAL SANITARY WARE	(D)	(D)	2.9	4.7	.7	.3	228.1	5.7	(D)	5.8	13.3	5
3432	PLUMBING FITTINGS, BRASS GOODS	-	-	1.2	2.2	(D)	(D)	313.2	8.7	(D)	3.7	12.5	6
3433	HEATING EQUIP., EXCEPT ELECTRIC	(D)	(D)	1.5	2.8	.2	(D)	265.5	7.9	(S)	4.5	13.8	7
344	FABRICATED STRUC. METAL PRODS	(D)	(D)	28.3	51.4	12.2	(D)	5,264.8	147.9	2.7	67.2	209.5	2
3441	FABRICATED STRUCTURAL METAL	(D)	(Z)	4.7	8.6	4.7	(D)	1,138.2	32.3	(D)	14.6	48.2	6
3442	METAL DOORS, SASH, AND TRIM	-	-	3.1	5.6	.8	3.6	574.8	16.9	(D)	8.0	25.7	6
3443	FABR. PLATEWORK, BOILER SHOPS	(D)	(D)	10.6	19.1	(D)	4.7	1,808.8	49.4	(D)	22.3	68.7	3
3444	SHEET METALWORK	-	-	6.4	11.2	(D)	(D)	714.4	20.1	(D)	12.6	34.7	4
3446	ARCHITECTURAL METALWORK	(D)	(Z)	.9	1.7	(D)	1.4	227.6	6.7	.1	2.7	9.9	9
3448	PREFABRICATED METAL BUILDINGS	(Z)	(Z)	1.1	2.0	.8	(D)	358.2	9.4	-	2.8	10.2	2
3449	MISCELLANEOUS METALWORK	-	-	1.7	3.1	(D)	.7	442.7	13.0	(S)	4.2	15.3	3
345	SCREW MACHINE PROD., BOLTS, ETC.	-	-	10.0	20.5	(D)	(D)	1,627.9	49.6	(D)	20.2	67.0	3
3451	SCREW MACHINE PRODUCTS	-	-	1.5	3.0	(D)	(D)	536.5	16.3	(D)	4.7	18.0	11
3452	BOLTS, NUTS, RIVETS, WASHERS	-	-	8.5	17.6	(D)	2.7	1,091.3	33.3	(D)	15.5	49.0	3
346	METAL FORGINGS AND STAMPINGS	(D)	(D)	54.0	104.7	10.7	(D)	6,162.5	175.6	(S)	100.4	275.6	3
3462	IRON AND STEEL FORGINGS	(D)	(D)	30.4	58.6	1.4	(D)	1,295.0	37.5	(D)	44.1	90.9	7
3463	NONFERROUS FORGINGS	-	-	(S)	(S)	(S)	(S)	225.5	7.0	-	5.9	13.6	(X)
3465	AUTOMOTIVE STAMPINGS	-	-	10.0	19.6	7.4	.4	3,154.5	85.3	(D)	31.6	111.5	4
3466	CROWNS AND CLOSURES	-	-	1.4	2.9	.1	.2	164.2	4.7	(D)	2.6	7.3	2
3469	METAL STAMPINGS, NEC	-	-	8.8	16.6	1.8	3.9	1,323.3	41.2	(S)	16.3	52.3	9
347	METAL SERVICES, NEC	-	-	22.3	41.1	(D)	(D)	2,529.8	65.7	(D)	39.3	111.4	7
3471	PLATING AND POLISHING	-	-	10.7	18.6	(D)	(D)	1,535.7	46.6	-	22.8	70.9	10
3479	METAL COATING, ALLIED SERVICES	-	-	11.6	22.4	3.0	1.5	994.1	19.1	(D)	16.5	40.5	10
348	ORDNANCE AND ACCESSORIES, NEC	-	-	6.6	10.2	2.9	(D)	1,218.7	32.7	(S)	20.8	55.2	1
3482	SMALL ARMS AMMUNITION	-	-	.9	1.2	(D)	.1	194.8	5.2	(D)	4.1	9.9	1
3483	AMMUNITION, EXC. SMALL ARMS NEC	-	-	2.1	4.0	(D)	.4	334.2	9.2	(D)	8.6	22.7	1
3484	SMALL ARMS	-	-	.5	1.1	(D)	.2	199.4	6.1	(D)	2.0	8.7	2
3489	ORDNANCE AND ACCESSORIES NEC	-	-	3.1	3.8	(Z)	(D)	490.3	12.2	(D)	6.1	13.9	2
349	MISC. FABRICATED METAL PRODUCTS	25.1	3.0	22.8	43.3	5.1	9.6	4,327.3	121.9	(S)	53.0	171.9	3
3493	STEEL SPRINGS, EXCEPT WIRE	-	-	3.8	7.0	1.1	(D)	168.5	4.5	(D)	4.8	12.4	8
3494	VALVES AND PIPE FITTINGS	(D)	(D)	9.0	17.0	1.1	(D)	1,786.4	51.3	(D)	19.3	64.8	5
3495	WIRE SPRINGS	-	-	(S)	(S)	(S)	(S)	202.6	7.0	-	2.4	8.2	(X)
3496	MISC. FABRICATED WIRE PRODUCTS	-	-	1.3	2.4	.2	(D)	394.1	12.5	-	4.6	15.7	10
3497	METAL FOIL AND LEAF	-	-	1.2	2.2	.4	(D)	398.0	10.0	-	2.5	9.6	5
3498	FABRICATED PIPE AND FITTINGS	-	-	2.1	4.2	1.3	(D)	341.3	10.2	-	4.1	13.7	9
3499	FABRICATED METAL PRODUCTS, NEC	(D)	(D)	3.8	7.0	.6	6.3	1,036.4	26.4	(D)	15.2	47.6	6
35	MACHINERY, EXCEPT ELECTRIC	109.2	14.6	127.9	234.7	36.5	56.0	28,441.4	796.4	199.7	339.3	1,098.9	1
351	ENGINES AND TURBINES	(D)	(D)	10.5	20.0	(D)	.4	2,351.7	62.8	79.5	30.2	95.7	1
3511	TURBINES, TURB. GENERATOR SETS	-	-	1.4	3.0	(D)	(D)	629.5	18.8	(D)	9.5	33.3	1
3519	INTERNAL COMBUS. ENGINES, NEC	(D)	(D)	9.1	17.0	(D)	(D)	1,722.1	44.0	(D)	20.7	62.3	1
352	FARM AND GARDEN MACHINERY	61.0	8.3	17.2	27.8	6.4	4.4	2,090.3	55.9	(D)	37.5	93.7	2
3523	FARM MACHINERY AND EQUIPMENT	61.0	8.3	15.4	24.7	5.7	4.0	1,840.3	49.1	(D)	34.0	83.8	2
3524	LAWN AND GARDEN EQUIPMENT	-	-	1.8	3.1	.7	.4	250.0	6.9	-	3.5	10.0	3
353	CONSTRUCTION, RELATED MACHINERY	(D)	(D)	29.5	53.0	6.3	8.1	5,069.0	131.4	48.9	68.1	187.4	1
3531	CONSTRUCTION MACHINERY	(D)	(D)	16.7	28.9	3.8	(D)	2,637.6	69.1	(D)	35.5	94.8	1
3532	MINING MACHINERY	-	-	2.1	3.2	.3	.9	404.6	11.0	(Z)	5.0	14.8	7
3533	OILFIELD MACHINERY	(D)	(D)	6.8	13.4	(D)	1.2	1,149.1	24.4	(S)	15.9	39.8	2
3534	ELEVATORS AND MOVING STAIRWAYS	-	-	.4	.8	(D)	(D)	102.9	3.8	-	1.4	5.2	7

See footnotes at end of table.

Table 3 Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977											
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--	
						Distillate		Residual					
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)		
		A	B	C	D	E	F	G	H	I	J	F	H
35	MACHINERY, EXCEPT ELECTRIC--CON.												
353	CONSTRUCTION, RELATED MACHINERY--CON.												
3535	CONVEYORS AND CONVEYING EQUIP.	3.6	13.6	2.7	5.3	43.9	.7	18.1	.3	(D)	(D)	8	2 (X)
3536	HOISTS, CRANES, AND MONORAILS.	1.9	7.5	1.4	2.8	(D)	(D)	21.7	.3	(D)	(D)	(X)	23 (X)
3537	INDUSTRIAL TRUCKS AND TRACTORS	4.9	18.0	3.7	7.9	143.9	2.3	(D)	(D)	(D)	(Z)	4 (X)	59
354	METALWORKING MACHINERY	38.8	163.3	26.0	51.8	324.4	5.4	328.5	4.8	60.2	2.3	10	6 3
3541	MACHINE TOOLS, METAL-CUTTING	8.7	34.9	6.3	12.6	56.2	.9	133.9	2.0	56.0	2.2	11	11 1
3542	MACHINE TOOLS, METAL-FORMING	2.9	12.6	2.0	4.4	35.1	.6	32.0	.5	(Z)	(Z)	17	35 87
3544	SPECIAL DIES, TOOLS, JIGS, ETC	12.7	53.9	8.6	16.3	98.9	1.7	21.6	.3	(D)	(D)	29	24 (X)
3545	MACHINE TOOL ACCESSORIES	6.3	31.1	3.8	7.7	57.8	.9	51.2	.8	-	-	10	2 (X)
3546	POWER DRIVEN HANDTOOLS	3.5	12.9	1.7	3.5	15.8	.2	81.5	1.1	-	-	1	1 (X)
3547	ROLLING MILL MACHINERY	2.6	9.0	2.2	4.3	(D)	(D)	(D)	(D)	-	-	(X)	(X) (X)
3549	METALWORKING MACHINERY, NEC.	2.0	8.8	1.4	2.7	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
355	SPECIAL INDUSTRY MACHINERY	22.3	94.6	15.4	33.0	363.5	6.3	374.7	5.6	5.2	.2	12	4 44
3551	FOOD PRODUCTS MACHINERY.	3.9	16.2	2.8	5.7	59.6	1.0	(D)	(D)	(D)	(D)	14	(X) (X)
3552	TEXTILE MACHINERY.	3.4	14.8	2.2	5.5	61.6	1.2	94.2	1.3	-	-	50	1 (X)
3553	WOODWORKING MACHINERY.	1.4	4.5	1.0	1.5	5.8	.1	(D)	(D)	-	-	52	(X) (X)
3554	PAPER INDUSTRIES MACHINERY	1.8	8.7	1.2	2.9	48.3	.8	(D)	(D)	-	-	17	(X) (X)
3555	PRINTING TRADES MACHINERY.	2.5	12.2	1.6	3.7	41.3	.7	(D)	(D)	-	-	12	(X) (X)
3559	SPECIAL INDUSTRY MACHINERY, NEC.	9.3	38.3	6.6	13.6	146.8	2.5	169.4	2.4	(D)	(D)	15	6 (X)
356	GENERAL INDUSTRIAL MACHINERY	53.8	207.2	38.3	78.2	565.5	9.5	580.7	8.2	49.0	1.7	4	2 6
3561	PUMPS AND PUMPING EQUIPMENT.	8.3	37.0	5.2	10.9	104.3	1.8	81.1	1.2	-	-	9	3 (X)
3562	BALL AND ROLLER BEARINGS	16.3	58.0	11.9	24.5	94.8	1.5	(D)	(D)	(D)	(D)	10	(X) (X)
3563	AIR AND GAS COMPRESSORS.	5.5	19.9	4.1	8.8	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X) 1
3564	BLOWERS AND FANS	3.6	14.1	2.7	5.4	28.1	.5	40.6	.6	(D)	(Z)	6	8 1
3565	INDUSTRIAL PATTERNS.	1.1	3.3	.8	1.2	(D)	(D)	(D)	(Z)	-	-	(Y)	1 (X)
3566	SPEED CHANGERS, DRIVES, GEARS.	4.7	17.2	3.4	6.6	40.7	.7	25.3	.4	(D)	(Z)	10	17 1
3567	INDUSTRIAL FURNACES AND OVENS.	1.6	6.9	1.1	2.3	(D)	(D)	(D)	(D)	-	-	(X)	(X) (X)
3568	POWER TRANSMISSION EQUIP., NEC	7.4	26.3	5.5	10.7	53.0	.9	13.7	.2	(D)	(D)	1	4 (X)
3569	GEN'L INDUSTRIAL MACHINERY, NE-	5.5	24.4	3.7	7.8	90.7	1.5	41.3	.6	(D)	(D)	14	1 (X)
357	OFFICE AND COMPUTING MACHINES.	19.8	105.7	10.3	21.2	266.5	4.4	161.9	2.3	(D)	(D)	2	7 (X)
3573	ELECTRONIC COMPUTING EQUIPMENT	13.2	75.9	5.9	11.7	84.6	1.4	134.3	1.9	-	-	3	8 (X)
3574	CALCULATING, ACCOUNTING MACHINES.	1.4	6.4	.8	1.6	(D)	(D)	-	-	-	-	(X)	(X) (X)
3576	SCALES, BALANCES, EXCEPT LAB	.6	2.9	.5	1.1	(D)	(D)	(D)	(D)	-	-	(X)	(X) (X)
3579	OFF. MACHINES, TYPEWRITERS, ETC.	4.6	20.4	3.1	6.9	113.4	1.9	(D)	(D)	(D)	(D)	2	(X) (X)
358	REFRIGERATION AND SERVICE MACH	38.9	127.2	27.2	51.5	280.4	4.6	496.8	7.3	84.6	2.6	4	1 2
3581	AUTOMATIC MERCHANDISING MACHINES.	1.1	3.9	.8	1.6	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X) 69
3582	COMMERCIAL LAUNDRY EQUIPMENT	.5	1.9	.3	.8	(D)	(D)	(D)	(Z)	-	-	(X)	66 (X)
3585	REFRIGERATION, HEATING EQUIP	31.3	106.4	23.2	43.6	219.1	3.6	471.8	6.9	(D)	(D)	4	1 (X)
3586	MEASURING AND DISPENSING PUMPS	1.0	3.8	.8	1.5	8.1	.1	(D)	(D)	-	-	1	(X) (X)
3589	SERVICE INDUSTRY MACHINERY, NEC.	2.8	11.1	2.1	4.0	43.0	.7	5.2	.1	(D)	(D)	16	46 (X)
359	MISC. MACHINERY, EXC. ELEC	30.6	121.5	20.4	37.5	197.1	3.5	77.9	1.2	(D)	(D)	2	22 (X)
3592	CARBURETORS, PISTONS, RINGS ETC.	7.8	29.7	5.1	8.7	45.8	.7	(D)	(D)	(D)	(D)	)	(X) (X)
3599	MACHINERY, EXC. ELECTRICAL, NEC.	22.8	91.8	15.4	28.8	151.4	2.7	(D)	(D)	(D)	(D)	31	(X) (X)
36	ELECTRIC, ELECTRONIC EQUIP	249.3	986.7	164.1	317.3	2,763.1	44.2	2,422.4	35.2	547.6	17.0	2	1
361	ELECTRIC DISTRIBUTING EQUIPMENT.	15.9	61.4	10.9	21.3	184.1	3.0	347.1	4.9	(D)	(D)	1	1 (X)
3612	TRANSFORMERS	9.0	29.9	6.5	11.8	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
3613	SWITCHGEAR, SWITCHBD APPARATUS.	6.9	31.5	4.4	9.5	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X) 1
362	ELECTRICAL INDUSTRIAL APPARATUS.	42.6	150.9	27.9	55.9	580.6	9.2	231.1	3.2	19.2	.7	2	3 11
3621	MOTORS AND GENERATORS.	15.9	58.1	11.0	21.2	130.0	2.1	89.8	1.2	(D)	(D)	2	7 (X)
3622	INDUSTRIAL CONTROLS.	4.9	21.4	3.0	5.7	75.4	1.0	35.3	.5	-	-	4	1 (X)
3623	WELDING APPARATUS, ELECTRIC.	3.4	12.9	2.5	5.1	59.6	1.0	(D)	(D)	(D)	(D)	3	(X) (X)
3624	CARBON AND GRAPHITE PRODUCTS	16.3	50.0	9.9	21.1	(D)	(D)	(D)	(D)	(D)	(Z)	(X)	(X) 1
3629	ELEC. INDUSTRIAL APPARATUS, NEC.	2.1	8.5	1.4	2.8	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
363	HOUSEHOLD APPLIANCES	41.7	125.8	32.5	59.4	311.6	4.9	235.0	3.4	162.9	5.2	3	1 1
3631	HOUSEHOLD COOKING EQUIPMENT.	6.5	19.2	5.1	9.4	42.1	.7	(D)	(D)	(D)	(D)	16	(X) (X)
3632	HSEHOLD REFRIGERATORS, FREEZERS.	12.1	32.5	9.8	17.3	17.8	.3	(D)	(D)	(D)	(D)	26	(X) (X)
3633	HOUSEHOLD LAUNDRY EQUIPMENT.	8.0	23.6	6.2	11.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
3634	ELECTRIC HOUSEWARES AND FANS	6.5	24.8	4.4	8.6	59.1	.9	(D)	(D)	(D)	(Z)	3	(X) 73
3635	HOUSEHOLD VACUUM CLEANERS.	2.5	5.7	1.0	1.9	(D)	(D)	(D)	(Z)	(D)	(D)	(X)	1 (X)
3636	SEWING MACHINES.	.9	4.2	.7	1.6	(D)	(D)	(D)	(D)	-	-	(X)	(X) (X)
3639	HOUSEHOLD APPLIANCES, NEC.	6.2	15.7	5.3	9.7	(S)	(D)	(Z)	(Z)	(D)	(D)	(X)	48 (X)
364	ELEC. LIGHTING, WIRING EQUIP	29.0	109.4	21.0	41.4	380.1	6.0	262.2	3.9	91.2	2.6	12	2 1
3641	ELECTRIC LAMPS	6.0	22.8	4.3	9.0	51.9	.8	66.7	1.0	-	-	1	1 (X)
3643	CURRENT-CARRYING WIRING DEVICES.	4.1	21.2	2.5	5.6	73.0	1.1	83.5	1.3	-	-	3	1 (X)
3644	NONCUR.-CARRYING WIRING DIVICES	6.0	24.2	4.4	9.6	127.7	2.1	(D)	(D)	(D)	(D)	32	(X) (X)
3645	RESIDENTIAL LIGHTING FIXTURES.	3.6	11.7	2.9	5.7	(D)	(D)	8.3	.1	(D)	(Z)	(X)	1 76
3646	COMMERCIAL LIGHTING FIXTURES	2.8	9.2	2.3	4.4	15.4	.3	(D)	(D)	-	-	13	(X) (X)
3647	VEHICULAR LIGHTING EQUIPMENT	4.3	12.4	3.1	4.0	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
3648	LIGHTING EQUIPMENT, NEC.	2.1	8.1	1.5	3.1	39.3	.5	(D)	(D)	-	-	5	(X) (X)
365	RADIO, TV RECEIVING EQUIPMENT.	11.2	41.9	8.0	16.1	271.4	4.5	55.0	.9	(D)	(D)	4	1 (X)
3651	RADIO AND TV RECEIVING SETS.	5.6	24.0	3.5	6.6	51.1	.8	33.1	.6	(D)	(D)	17	1 (X)
3652	PHONO RECORDS, PRERECORDED TAPE.	5.6	17.9	4.5	9.5	220.3	3.6	21.9	.3	-	-	1	1 (X)
366	COMMUNICATION EQUIPMENT.	37.7	173.8	21.9	42.0	473.5	7.6	346.5	5.1	68.2	2.1	4	1 1
3661	TELEPHONE, TELEGRAPH APPARATUS	14.8	50.7	10.6	19.2	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
3662	RADIO, TV COMMUNICATION EQUIP.	22.9	123.1	11.4	22.8	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
367	ELECTRONIC COMPONENTS, ACCESS.	48.6	217.3	24.1	48.6	279.2	4.6	795.5	11.6	(D)	(D)	6	1 (X)
3671	ELECTRON TUBES, RECEIVING TYPE	7.7	30.3	4.8	9.4	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X) (X)
3674	SEMICONDUCTORS, RELATED DEVICES.	15.6	82.6	7.2	14.4	38.4	.6	261.6	3.5	-	-	3	1 (X)
3675	ELECTRONIC CAPACITORS.	3.3	16.5	1.7	3.6	38.5	.6	(D)	(D)	(D)	(Z)	1	(X) 96
3676	ELECTRONIC RESISTORS	1.8	8.8	.9	1.7	16.6	.3	(D)	(D)	-	-	13	(X) (X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977--Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]--
		Coke and breeze		Natural gas		Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Electric energy purchased		Electric energy generated less sold	British thermal units (trillions)	Cost (million dollars)	
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)			Quantity (million kWh)	Cost (million dollars)	(million kWh)			
		K	L	M	N	O	P	Q	R	S	T	U	N
35	MACHINERY, EXCEPT ELECTRIC--CON.												
353	CONSTRUCTION, RELATED MACHINERY--CON.												
3535	CONVEYORS AND CONVEYING EQUIP.	-	-	1.5	2.9	.2	(D)	267.0	8.3	-	3.2	11.2	12
3536	HOISTS, CRANES, AND MONORAILS.	(D)	(Z)	.8	1.4	.1	.6	148.8	4.7	-	2.5	7.7	7
3537	INDUSTRIAL TRUCKS AND TRACTORS	-	-	1.2	2.2	1.3	(D)	359.0	10.1	-	4.6	13.9	7
354	METALWORKING MACHINERY	(D)	(D)	12.6	24.8	(D)	10.1	3,736.1	111.5	(S)	40.9	150.3	4
3541	MACHINE TOOLS, METAL-CUTTING	-	-	2.3	4.9	(D)	(D)	701.2	22.4	-	9.0	31.1	6
3542	MACHINE TOOLS, METAL-FORMING	(D)	(D)	1.3	2.8	(D)	.1	269.6	8.2	-	3.7	12.6	6
3544	SPECIAL DIES, TOOLS, JIGS, ETC	-	-	4.1	7.4	(D)	4.8	1,190.4	37.6	(D)	13.2	51.6	10
3545	MACHINE TOOL ACCESSORIES	-	-	1.7	3.4	.3	2.3	741.6	23.4	(S)	5.5	24.9	5
3546	POWER DRIVEN HANDTOOLS	-	-	.9	1.8	(D)	(D)	510.5	9.4	-	2.5	10.3	8
3547	ROLLING MILL MACHINERY	-	-	1.6	3.2	(D)	(D)	139.9	4.5	-	4.1	10.6	1
3549	METALWORKING MACHINERY, NEC.	-	-	.7	1.4	(D)	.6	182.9	6.1	(D)	2.8	9.2	14
355	SPECIAL INDUSTRY MACHINERY	(D)	(D)	7.6	14.6	(D)	3.8	2,013.2	61.7	15.2	23.9	88.9	6
3551	FOOD PRODUCTS MACHINERY.	(D)	(D)	1.0	2.0	.3	1.6	333.3	10.5	(D)	4.0	14.3	8
3552	TEXTILE MACHINERY.	(D)	(D)	.9	1.9	.2	(D)	341.6	9.3	-	3.5	13.7	12
3553	WOODWORKING MACHINERY.	-	-	.9	1.3	.2	(D)	121.7	2.9	-	1.6	5.6	41
3554	PAPER INDUSTRIES MACHINERY	(D)	(D)	.5	1.2	.2	(D)	164.1	5.8	-	2.1	8.7	7
3555	PRINTING TRADES MACHINERY.	-	-	.6	1.4	(D)	.8	252.4	8.5	-	3.1	11.5	14
3559	SPECIAL INDUSTRY MACHINERY, NEC.	(Z)	(Z)	3.6	6.9	.5	(D)	800.0	24.6	(D)	9.6	35.1	8
356	GENERAL INDUSTRIAL MACHINERY	15.1	1.9	22.6	44.1	6.5	6.2	4,551.6	129.0	(S)	50.5	170.1	2
3561	PUMPS AND PUMPING EQUIPMENT.	4.3	.5	2.8	5.2	1.2	1.0	898.3	26.1	(D)	8.3	30.5	4
3562	BALL AND ROLLER BEARINGS	-	-	7.7	15.9	2.1	.4	1,284.1	33.6	(S)	15.7	49.2	1
3563	AIR AND GAS COMPRESSORS.	(D)	(D)	1.9	3.4	.8	(S)	410.9	11.1	(D)	4.9	15.6	4
3564	BLOWERS AND FANS	-	-	1.4	2.8	(D)	1.1	260.3	8.8	(Z)	3.2	11.9	7
3565	INDUSTRIAL PATTERNS.	-	-	.6	.9	(D)	.1	82.6	2.2	-	1.1	3.9	34
3566	SPEED CHANGERS, DRIVES, GEARS.	(D)	(D)	2.3	4.4	(D)	.5	383.1	10.5	(Z)	4.7	14.5	11
3567	INDUSTRIAL FURNACES AND OVENS.	(Z)	(Z)	(S)	(S)	(Z)	(S)	143.4	4.6	-	1.4	5.5	(X)
3568	POWER TRANSMISSION EQUIP., NEC	(D)	(D)	3.5	6.7	.7	1.2	575.2	15.6	(D)	6.2	20.1	1
3569	GEN'L INDUSTRIAL MACHINERY, NEC.	(D)	(Z)	1.6	3.1	(D)	1.7	511.6	16.6	(D)	5.0	19.0	8
357	OFFICE AND COMPUTING MACHINES.	-	-	5.4	10.5	(D)	(D)	2,801.8	88.4	(S)	20.4	92.2	2
3573	ELECTRONIC COMPUTING EQUIPMENT	-	-	2.9	5.5	.4	2.5	2,126.7	64.3	(D)	13.5	66.4	3
3574	CALCULATING, ACCOUNTING MACHINES.	-	-	(D)	(D)	-	(S)	186.1	4.8	(D)	2.1	7.9	(X)
3576	SCALES, BALANCES, EXCEPT LAB	-	-	(S)	(S)	(S)	(S)	52.9	1.8	-	.6	2.5	(X)
3579	OFF. MACHINES, TYPEWRITERS, ETC.	-	-	(D)	(D)	.3	.2	436.1	13.6	-	4.1	15.5	(X)
358	REFRIGERATION AND SERVICE MACH	(D)	(D)	12.5	22.8	4.1	(D)	2,840.8	75.6	(D)	39.0	112.1	2
3581	AUTOMATIC MERCHANDISING MACHINES.	-	-	.5	.9	(Z)	(D)	66.9	2.3	-	1.1	3.7	7
3582	COMMERCIAL LAUNDRY EQUIPMENT	(D)	(D)	.3	.6	-	(Z)	41.5	1.1	-	.5	1.5	2
3585	REFRIGERATION, HEATING EQUIP	(D)	(D)	10.2	18.5	4.0	7.8	2,440.8	62.8	(D)	33.4	94.2	1
3586	MEASURING AND DISPENSING PUMPS	-	-	.5	.8	.1	(D)	73.9	2.3	-	1.1	3.4	4
3589	SERVICE INDUSTRY MACHINERY, NEC.	-	-	1.0	1.9	.1	(D)	217.8	7.1	(S)	2.9	9.3	9
359	MISC. MACHINERY, EXC. ELEC	(D)	(D)	10.1	17.1	3.9	10.5	2,987.0	84.0	(D)	28.8	108.4	6
3592	CARBURETORS, PISTONS, RINGS ETC.	(Z)	(Z)	3.2	5.2	1.2	.3	810.3	21.0	-	8.2	26.8	1
3599	MACHINERY, EXC. ELECTRICAL, NEC.	(D)	(D)	6.9	11.9	2.7	10.3	2,176.7	63.0	(D)	20.7	81.5	8
36	ELECTRIC, ELECTRONIC EQUIP	12.2	1.5	84.4	158.3	33.2	27.9	24,996.9	669.4	(S)	241.5	824.5	1
361	ELECTRIC DISTRIBUTING EQUIPMENT.	-	-	4.2	7.9	1.6	(D)	1,453.5	40.1	(D)	14.9	51.7	1
3612	TRANSFORMERS	-	-	2.4	4.4	.5	.9	734.9	18.1	-	8.3	25.2	2
3613	SWITCHGEAR, SWITCHBOARD APPARATUS.	-	-	1.8	3.5	1.1	(D)	718.6	22.0	(D)	6.5	26.5	1
362	ELECTRICAL INDUSTRIAL APPARATUS.	-	-	17.1	32.7	8.2	1.9	4,313.9	95.0	(S)	44.5	138.6	2
3621	MOTORS AND GENERATORS.	-	-	6.2	11.0	(D)	.5	1,410.3	36.9	(D)	15.9	48.0	4
3622	INDUSTRIAL CONTROLS.	-	-	1.8	3.1	.3	.8	552.4	15.7	.4	5.7	21.9	3
3623	WELDING APPARATUS, ELECTRIC.	-	-	1.3	2.6	.9	.2	261.1	7.8	(D)	3.0	9.3	7
3624	CARBON AND GRAPHITE PRODUCTS	-	-	7.4	15.1	(D)	.3	1,895.9	28.9	-	17.9	47.4	1
3629	ELEC. INDUSTRIAL APPARATUS, NEC.	-	-	.5	.9	(D)	.1	194.2	5.7	-	2.0	9.0	18
363	HOUSEHOLD APPLIANCES	(D)	(D)	17.8	32.3	(D)	2.0	2,713.0	66.3	(S)	38.1	100.8	1
3631	HOUSEHOLD COOKING EQUIPMENT.	(D)	(D)	3.6	6.5	.7	.2	393.1	9.7	.2	7.0	17.0	2
3632	HSEHOLD REFRIGERATORS, FREEZERS.	-	-	3.6	6.3	(D)	(S)	660.8	15.3	(S)	9.0	20.9	2
3633	HOUSEHOLD LAUNDRY EQUIPMENT.	-	-	3.4	6.3	(D)	(S)	536.1	12.6	-	7.8	19.8	1
3634	ELECTRIC HOUSEWARES AND FANS	-	-	2.5	4.4	(D)	1.5	612.3	16.2	-	6.2	22.2	6
3635	HOUSEHOLD VACUUM CLEANERS.	-	-	(D)	(D)	-	(Z)	153.7	3.8	(Z)	1.7	5.6	(X)
3636	SEWING MACHINES.	-	-	(D)	(D)	(Z)	(Z)	85.2	2.7	.4	.9	3.6	(X)
3639	HOUSEHOLD APPLIANCES, NEC.	-	-	(S)	(S)	(D)	(S)	271.8	6.0	-	5.4	11.7	(X)
364	ELEC. LIGHTING, WIRING EQUIP	(D)	(D)	10.3	20.5	3.7	(D)	2,332.5	68.1	(S)	28.9	94.8	2
3641	ELECTRIC LAMPS	-	-	3.1	6.2	(D)	(D)	489.1	13.8	(S)	6.1	19.4	1
3643	CURRENT-CARRYING WIRING DEVICES.	-	-	.9	1.9	.7	.5	469.2	15.6	(S)	4.0	18.2	4
3644	NONCUR.-CARRYING WIRING DIVICES	(D)	(D)	2.2	4.4	1.1	(Z)	490.1	14.6	(S)	6.1	21.3	5
3645	RESIDENTIAL LIGHTING FIXTURES.	-	-	1.2	2.2	(D)	1.9	186.5	6.0	(D)	3.5	10.6	1
3646	COMMERCIAL LIGHTING FIXTURES	-	-	1.4	2.6	.5	.7	151.5	4.8	-	3.4	10.0	7
3647	VEHICULAR LIGHTING EQUIPMENT	-	-	.8	1.6	(D)	(D)	369.0	8.3	-	4.2	9.4	-
3648	LIGHTING EQUIPMENT, NEC.	-	-	.7	1.5	.4	(D)	177.1	5.0	-	1.5	5.8	10
365	RADIO, TV RECEIVING EQUIPMENT.	-	-	3.0	5.5	(D)	4.1	930.6	25.8	-	10.7	34.9	3
3651	RADIO AND TV RECEIVING SETS.	-	-	1.8	3.3	(D)	1.0	624.7	17.4	-	5.6	20.4	4
3652	PHONO RECORDS, PRERECORDED TAPE.	-	-	1.2	2.2	.2	3.1	305.9	8.4	-	5.1	14.5	5
366	COMMUNICATION EQUIPMENT.	-	-	12.0	21.7	1.8	3.7	4,626.7	131.8	37.0	36.7	150.8	2
3661	TELEPHONE, TELEGRAPH APPARATUS	-	-	6.8	12.4	.1	.8	1,241.9	31.5	(D)	14.5	41.8	1
3662	RADIO, TV COMMUNICATION EQUIP.	-	-	5.1	9.3	1.7	3.0	3,384.8	100.3	(D)	22.2	109.0	4
367	ELECTRONIC COMPONENTS, ACCESS.	-	-	10.9	20.8	3.5	(D)	6,004.9	168.7	(S)	43.0	175.0	4
3671	ELECTRON TUBES, RECEIVING TYPE	-	-	2.6	5.0	(D)	.4	848.3	20.9	(S)	7.9	28.4	1
3674	SEMICONDUCTORS, RELATED DEVICES.	-	-	3.6	7.3	.6	2.4	2,465.5	68.3	-	14.2	90.7	2
3675	ELECTRONIC CAPACITORS.	-	-	.5	.9	(D)	.2	463.8	12.9	(D)	3.2	13.2	9
3676	ELECTRONIC RESISTORS	-	-	.8	1.1	.2	(D)	269.1	7.0	(D)	1.5	6.9	2

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977													
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]--			
						Distillate		Residual							
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)				
		A	B	C	D	E	F	G	H	I	J	F	H	J	
36	ELECTRIC, ELECTRONIC EQUIP--CON.														
367	ELECTRONIC COMPONENTS, ACCESS--CON.														
3677	ELECTRONIC COILS, TRANSFORMERS	1.0	4.7	.6	1.1	14.2	.2	(D)	(D)	(D)	(D)	31	(X)	(X)	
3678	ELECTRONIC CONNECTORS	1.9	11.4	.9	2.0	16.8	.3	37.1	.5	-	-	5	1	(X)	
3679	ELECTRONIC COMPONENTS, NEC	13.4	63.0	8.1	16.4	139.8	2.3	(D)	(D)	(D)	(Z)	10	(X)	58	
369	MISC. ELEC. EQUIPMENT, SUPPLIES	26.6	106.2	17.7	32.6	282.7	4.4	156.1	2.2	(D)	(D)	1	4	(X)	
3691	STORAGE BATTERIES	10.7	43.7	7.0	14.1	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3692	PRIMARY BATTERIES, DRY AND WET	1.4	6.3	.9	2.0	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3693	X-RAY APPARATUS AND TUBES	2.2	11.5	1.3	2.6	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3694	ENGINE ELECTRICAL EQUIPMENT	10.0	34.7	6.9	10.8	(S)	(S)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3699	ELECTRIC EQUIP., SUPPLIES, NEC	2.3	9.9	1.8	3.2	29.4	.4	(D)	(D)	(D)	(Z)	11	(X)	1	
37	TRANSPORTATION EQUIPMENT	389.9	1,402.6	284.2	553.5	2,856.2	45.3	5,594.0	80.1	1,842.9	62.3	2	1	1	
371	MOTOR VEHICLES AND EQUIPMENT	264.4	913.1	198.6	389.3	1,229.5	19.3	2,938.3	42.3	1,511.6	53.6	3	1	1	
3711	MOTOR VEHICLES AND CAR BODIES	116.8	384.2	91.4	179.5	519.8	7.7	1,450.6	20.9	672.8	24.8	1	1	1	
3713	TRUCK AND BUS BODIES	5.4	20.0	4.2	9.1	79.5	1.4	(D)	(D)	(D)	(D)	27	(X)	(X)	
3714	MOTOR VEHICLE PTS., ACCESSORIES	137.0	490.3	99.1	193.2	594.1	9.6	1,409.6	20.2	830.6	28.6	3	2	1	
3715	TRUCK TRAILERS	3.2	12.1	2.3	4.5	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3716	MOTOR HOMES	2.0	6.4	1.6	3.0	(D)	(D)	-	-	(D)	(D)	(X)	(X)	(X)	
372	AIRCRAFT AND PARTS	63.9	256.1	41.5	83.8	737.1	11.5	(D)	(D)	(D)	(D)	1	(X)	(X)	
3721	AIRCRAFT	28.2	113.1	18.2	35.4	361.3	5.6	(D)	(D)	(D)	(D)	1	(X)	(X)	
3724	AIRCRAFT ENGINES, ENGINE PARTS	21.9	86.8	15.0	32.4	244.4	3.8	(D)	(D)	(D)	(D)	2	(X)	(X)	
3728	AIRCRAFT EQUIPMENT, NEC	13.8	56.2	8.4	16.0	131.4	2.1	110.9	1.6	(D)	(D)	4	4	(X)	
373	SHIP, BOAT BUILDING, REPAIRING	23.5	96.0	16.3	32.4	283.9	4.8	809.1	11.4	(D)	(D)	8	1	(X)	
3731	SHIP BUILDING AND REPAIRING	19.0	80.8	12.7	25.5	239.5	4.0	(D)	(D)	(D)	(D)	5	(X)	(X)	
3732	BOAT BUILDING AND REPAIRING	4.6	15.3	3.6	6.9	44.3	.7	(D)	(D)	-	-	40	(X)	(X)	
3743	RAILROAD EQUIPMENT	15.3	41.4	12.8	20.4	318.6	5.1	(D)	(D)	(W)	(D)	2	(X)	(X)	
3751	MOTORCYCLES, BICYCLES, PARTS	2.7	9.3	2.0	4.1	7.7	.1	79.5	1.1	-	-	26	1	(X)	
376	GUIDED MISSILES, SPACE VEHICLES	12.7	62.6	7.0	12.6	133.5	2.1	201.1	2.6	19.7	.6	1	1	1	
3761	GUIDED MISSILES, SPACE VEHICLES	7.7	42.8	3.8	6.2	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3764	SPACE PROPULSION UNITS, PARTS	4.4	16.4	3.1	5.9	120.4	1.9	176.6	2.3	(D)	(D)	1	1	(X)	
3769	SPACE VEHICLE EQUIPMENT, NEC	.5	3.5	.2	.5	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
379	TRANSPORTATION EQUIPMENT, NEC	7.4	24.1	5.9	11.0	145.8	2.3	11.3	.2	(D)	(D)	21	19	(X)	
3792	TRAVEL TRAILERS AND CAMPERS	2.4	8.3	1.9	3.5	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3795	TANKS AND TANK COMPONENTS	3.6	11.1	2.9	5.4	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3799	TRANSPORTATION EQUIPMENT, NEC	1.4	4.7	1.1	2.1	45.2	.8	(D)	(D)	(D)	(Z)	63	(X)	1	
38	INSTRUMENTS, RELATED PRODS	78.4	272.5	59.5	108.2	585.0	9.4	1,481.0	21.3	(D)	(D)	4	1	(X)	
3811	ENGINEERING, SCIENTIFIC INSTRU	3.8	18.3	2.3	4.7	27.4	.5	44.4	.7	-	-	18	1	(X)	
382	MEASURING, CONTROLLING DEVICES	15.7	78.2	9.8	19.2	120.6	1.9	228.2	3.2	-	-	4	2	(X)	
3822	ENVIRONMENTAL CONTROLS	3.4	16.3	2.0	4.1	31.1	.5	(D)	(D)	-	-	1	(X)	(X)	
3823	PROCESS CONTROL INSTRUMENTS	3.1	15.8	1.8	3.9	23.5	.4	(D)	(D)	-	-	19	(X)	(X)	
3824	FLUID METERS, COUNTING DEVICES	1.6	7.0	1.0	2.0	4.2	.1	(D)	(D)	-	-	1	(X)	(X)	
3825	INSTRU. TO MEASURE ELECTRICITY	5.5	23.8	3.3	6.4	29.8	.5	71.8	1.0	-	-	5	4	(X)	
3829	MEASURING, CONTROLLING DEVICES NEC	2.2	11.3	1.4	2.7	32.0	.5	12.3	.2	-	-	1	6	(X)	
3832	OPTICAL INSTRUMENTS AND LENSES	2.0	8.4	1.5	2.9	9.0	.1	44.2	.7	-	-	5	1	(X)	
384	MEDICAL INSTRUMENTS, SUPPLIES	17.5	49.9	7.6	15.1	154.7	2.5	96.9	1.4	(D)	(D)	5	1	(X)	
3841	SURGICAL, MEDICAL INSTRUMENTS	4.0	19.0	2.3	4.6	26.9	.5	(D)	(D)	-	-	1	(X)	(X)	
3842	SURGICAL APPLIANCES, SUPPLIES	8.2	25.1	4.4	8.7	115.1	1.8	41.6	.6	(D)	(D)	4	1	(X)	
3843	DENTAL EQUIPMENT AND SUPPLIES	1.3	5.8	.9	1.8	12.7	.2	(D)	(D)	-	-	45	(X)	(X)	
3851	OPHTHALMIC GOODS	4.3	16.7	3.3	7.2	29.9	.5	(D)	(D)	-	-	9	(X)	(X)	
3861	PHOTOGRAPHIC EQUIP., SUPPLIES	39.0	94.5	34.0	56.5	180.6	2.9	(D)	(D)	(D)	(D)	11	(X)	(X)	
3873	WATCHES, CLOCKS, AND WATCHCASES	2.2	10.4	1.3	2.7	62.8	1.0	17.2	.3	(D)	(D)	1	8	(X)	
39	MISC. MANUFACTURING INDUS.	49.1	199.9	35.0	73.2	758.3	12.5	837.5	12.4	(D)	(D)	7	5	(X)	
391	JEWELRY, SILVER AND PLATED WARE	4.4	19.6	3.2	7.5	108.4	1.7	132.8	2.0	(D)	(D)	5	14	(X)	
3911	JEWELRY, PRECIOUS METAL	1.8	9.1	1.1	2.4	17.9	.3	(D)	(D)	-	-	21	(X)	(X)	
3914	SILVERWARE AND PLATED WARE	2.2	7.9	1.8	4.2	78.7	1.2	113.5	1.7	(D)	(D)	1	16	(X)	
3915	JEWELERS' MATS,, LAPIDARY WORK	.5	2.5	.4	.9	11.9	.2	(D)	(D)	-	-	21	(X)	(X)	
3931	MUSICAL INSTRUMENTS	2.1	9.1	1.5	3.1	41.3	.7	33.6	.5	(D)	(D)	6	1	(X)	
394	TOYS AND SPORTING GOODS	14.3	59.0	9.8	19.8	140.6	2.3	169.2	2.5	-	-	4	9	(X)	
3942	DOLLS	.7	3.1	.5	1.1	(D)	(D)	-	-	-	-	(X)	(X)	(X)	
3944	GAMES, TOYS, CHILDREN'S VEHICLES	5.6	27.3	3.5	7.4	(D)	(D)	62.5	.9	-	-	(X)	1	(X)	
3949	SPORTING, ATHLETIC GOODS, NEC	8.0	28.6	5.9	11.3	46.7	.7	102.8	1.6	-	-	6	6	(X)	
395	PENS, OFFICE AND ART GOODS	3.7	16.6	2.6	5.1	48.4	.8	85.0	1.2	(D)	(D)	16	14	(X)	
3951	PENS AND MECHNICAL PENCILS	1.1	6.6	.6	1.2	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3952	LEAD PENCILS AND ART GOODS	1.1	4.1	.8	1.6	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)	
3953	MARKING DEVICES	.6	2.6	.4	.8	4.8	.1	(D)	(D)	-	-	41	(X)	(X)	
3955	CARBON PAPER AND INKED RIBBONS	.9	3.5	.7	1.4	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
396	COSTUME JEWELRY AND NOTIONS	4.9	22.8	3.4	8.0	86.9	1.5	175.5	2.6	-	-	18	19	(X)	
3961	COSTUME JEWELRY	1.8	7.7	1.2	2.9	37.9	.6	52.7	.8	-	-	1	1	(X)	
3962	ARTIFICIAL FLOWERS	.5	1.8	.5	1.0	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3963	BUTTONS	.6	2.0	.3	.6	(D)	(D)	(D)	(D)	-	-	(X)	(X)	(X)	
3964	NEEDLES, PINS, AND FASTENERS	2.3	11.3	1.4	3.4	39.4	.7	79.8	1.2	-	-	28	12	(X)	

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977—Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column 1—
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	N
36	ELECTRIC, ELECTRONIC EQUIP--CON.												
367	ELECTRONIC COMPONENTS, ACCESS--CON.												
3677	ELECTRONIC COILS, TRANSFORMERS	-	-	.2	.3	.1	.4	129.7	3.6	-	1.3	4.6	13
3678	ELECTRONIC CONNECTORS	-	-	.4	.9	(D)	(D)	287.6	9.4	-	2.0	9.8	1
3679	ELECTRONIC COMPONENTS, NEC	-	-	2.9	5.2	(D)	4.2	1,540.9	46.6	(Z)	12.9	52.4	14
369	MISC. ELEC. EQUIPMENT, SUPPLIES	(D)	(D)	9.1	16.9	2.4	(D)	2,621.9	73.6	(D)	24.8	81.0	5
3691	STORAGE BATTERIES	(D)	(D)	4.7	8.6	1.9	(Z)	1,086.8	29.7	.5	9.8	33.2	9
3692	PRIMARY BATTERIES, DRY AND WET	-	-	(S)	(S)	(D)	(S)	149.7	4.3	-	1.4	5.4	(X)
3693	X-RAY APPARATUS AND TUBES	-	-	.6	1.1	(Z)	(D)	264.2	8.9	.1	1.6	5.9	2
3694	ENGINE ELECTRICAL EQUIPMENT	-	-	2.8	5.2	.2	(D)	908.0	23.9	(D)	9.5	26.2	1
3699	ELECTRIC EQUIP., SUPPLIES, NEC	-	-	.5	1.1	(D)	1.0	213.1	6.8	-	2.5	10.3	10
37	TRANSPORTATION EQUIPMENT	209.1	28.1	137.6	262.0	55.4	20.3	30,985.1	849.1	(S)	385.0	1,195.8	1
371	MOTOR VEHICLES AND EQUIPMENT	(D)	(D)	101.2	196.7	(D)	10.2	19,281.7	523.8	(S)	259.4	767.0	1
3711	MOTOR VEHICLES AND CAR BODIES	(D)	(D)	47.3	93.0	(D)	1.1	7,445.4	204.8	(D)	119.3	330.3	1
3713	TRUCK AND BUS BODIES	-	-	1.9	4.1	1.2	1.4	385.4	10.9	(D)	5.5	17.5	8
3714	MOTOR VEHICLE PTS., ACCESSORIES	(D)	(D)	50.4	98.5	(D)	6.2	11,097.3	297.1	(D)	131.8	409.8	1
3715	TRUCK TRAILERS	-	-	1.2	2.1	.6	1.0	253.9	7.6	-	2.8	9.3	4
3716	MOTOR HOMES	-	-	.5	.9	(D)	.5	117.6	3.4	-	-	-	5
372	AIRCRAFT AND PARTS	-	-	19.6	36.7	9.5	(D)	6,547.6	172.3	(S)	62.4	218.7	1
3721	AIRCRAFT	-	-	10.2	18.2	3.3	(D)	2,928.5	77.6	(D)	27.7	95.0	1
3724	AIRCRAFT ENGINES, ENGINE PARTS	-	-	3.9	6.6	3.2	(S)	2,020.1	54.5	(D)	20.8	72.9	2
3728	AIRCRAFT EQUIPMENT, NEC	-	-	5.5	9.9	1.0	(D)	1,601.9	40.1	(D)	14.0	50.7	4
373	SHIP, BOAT BUILDING, REPAIRING	(D)	(D)	5.2	7.8	4.3	4.0	2,115.6	63.6	(S)	20.9	79.5	9
3731	SHIP BUILDING AND REPAIRING	(D)	(D)	3.8	5.4	3.3	(D)	1,830.5	55.2	(D)	18.6	65.9	11
3732	BOAT BUILDING AND REPAIRING	-	-	1.4	2.4	1.0	(D)	285.1	8.4	-	2.3	13.6	15
3743	RAILROAD EQUIPMENT	(D)	(Z)	3.4	6.9	1.0	1.0	738.3	21.0	(D)	10.2	38.2	2
3751	MOTORCYCLES, BICYCLES, PARTS	-	-	1.0	2.1	.1	.6	188.9	5.2	-	2.5	8.1	5
376	GUIDED MISSILES, SPACE VEHICLES	-	-	3.8	6.3	.6	.6	1,675.3	50.0	(S)	15.6	60.6	1
3761	GUIDED MISSILES, SPACE VEHICLES	-	-	2.7	4.8	(D)	.4	1,202.1	36.6	(S)	9.6	38.7	1
3764	SPACE PROPULSION UNITS, PARTS	-	-	1.0	1.4	(D)	.1	382.2	10.4	(D)	4.5	19.1	1
3769	SPACE VEHICLE EQUIPMENT, NEC	-	-	(Z)	(Z)	(Z)	.1	91.0	3.0	-	1.5	7.8	1
379	TRANSPORTATION EQUIPMENT, NEC	-	-	3.3	5.5	(D)	(D)	437.7	13.1	-	8.0	23.6	6
3792	TRAVEL TRAILERS AND CAMPERS	-	-	.9	1.7	.6	(D)	154.7	4.8	-	2.5	8.1	15
3795	TANKS AND TANK COMPONENTS	-	-	1.7	2.7	.3	(D)	187.8	5.7	-	3.1	7.8	1
3799	TRANSPORTATION EQUIPMENT, NEC	-	-	.7	1.1	.1	(D)	95.2	2.7	-	2.3	7.7	15
38	INSTRUMENTS, RELATED PRODS	-	-	17.7	32.9	6.1	(D)	5,533.0	164.3	(D)	76.7	239.3	3
3811	ENGINEERING, SCIENTIFIC INSTRU	-	-	1.1	2.2	.2	1.1	420.7	13.6	(D)	4.2	19.0	8
382	MEASURING, CONTROLLING DEVICES	-	-	4.8	9.6	1.3	3.1	1,843.6	55.0	(D)	13.4	54.8	6
3822	ENVIRONMENTAL CONTROLS	-	-	1.2	2.2	(D)	.2	404.6	12.2	-	2.9	11.4	3
3823	PROCESS CONTROL INSTRUMENTS	-	-	.9	1.8	(D)	.2	363.8	11.9	(S)	2.3	10.5	29
3824	FLUID METERS, COUNTING DEVICES	-	-	.7	1.4	(D)	.1	185.2	5.0	-	1.6	5.8	3
3825	INSTRU. TO MEASURE ELECTRICITY	-	-	1.5	3.0	(D)	(D)	643.5	17.4	-	4.8	19.2	4
3829	MEASURING, CONTROLLING DEVICES NEC	-	-	.6	1.1	(D)	(D)	246.5	6.6	(D)	1.9	8.4	18
3832	OPTICAL INSTRUMENTS AND LENSES	-	-	.5	.8	.2	1.0	147.3	5.5	-	1.7	6.9	7
384	MEDICAL INSTRUMENTS, SUPPLIES	-	-	4.0	7.7	.9	(D)	1,166.2	34.8	(D)	11.2	44.0	7
3841	SURGICAL, MEDICAL INSTRUMENTS	-	-	.9	1.9	.3	(D)	489.7	14.4	(S)	4.3	18.0	8
3842	SURGICAL APPLIANCES, SUPPLIES	-	-	2.8	5.1	(D)	(D)	540.4	16.4	(Z)	5.4	19.0	10
3843	DENTAL EQUIPMENT AND SUPPLIES	-	-	.4	.7	(D)	(D)	116.1	4.0	(Z)	1.5	7.1	13
3851	OPHTHALMIC GOODS	-	-	.7	1.6	(D)	(D)	268.9	9.5	(D)	4.2	5	1
3861	PHOTOGRAPHIC EQUIP., SUPPLIES	-	-	5.9	9.9	(D)	(D)	1,440.5	38.1	(D)	39.9	88.5	3
3873	WATCHES, CLOCKS, AND WATCHCASES	-	-	.7	1.1	(D)	.3	245.8	7.7	(S)	2.1	9.6	12
39	MISC. MANUFACTURING INDUS.	-	-	14.7	28.6	5.8	(D)	4,123.3	126.7	(S)	48.3	175.8	5
391	JEWELRY, SILVER AND PLATED WARE	-	-	.9	2.1	.5	(D)	356.5	12.1	(S)	4.7	18.4	5
3911	JEWELRY, PRECIOUS METAL	-	-	.4	.9	(D)	.7	200.7	6.7	(D)	1.8	8.2	11
3914	SILVERWARE AND PLATED WARE	-	-	.4	1.0	.3	(D)	117.8	3.7	-	2.4	7.8	3
3915	JEWELERS' MATS., LAPIDARY WORK	-	-	.1	.2	(D)	.5	38.1	1.7	-	.6	2.4	20
3931	MUSICAL INSTRUMENTS	-	-	.6	1.1	(D)	.5	184.6	6.0	(D)	2.1	7.9	14
394	TOYS AND SPORTING GOODS	-	-	5.6	10.2	1.8	2.9	1,279.0	39.2	(D)	14.8	53.1	11
3942	DOLLS	-	-	.1	.2	(D)	.6	51.3	2.0	-	.6	2.4	29
3944	GAMES, TOYS, CHILD'S VEHICLES	-	-	2.2	4.4	(D)	(Z)	614.5	19.9	(D)	6.1	23.9	1
3949	SPORTING, ATHLETIC GOODS, NEC	-	-	3.3	5.7	1.0	2.2	613.2	17.3	(D)	8.1	26.8	5
395	PENS, OFFICE AND ART GOODS	-	-	.9	1.9	.2	(D)	380.5	11.4	(D)	3.6	14.4	6
3951	PENS AND MECHNICAL PENCILS	-	-	.2	.4	(Z)	(D)	159.8	5.3	(D)	1.0	5.5	7
3952	LEAD PENCILS AND ART GOODS	-	-	.1	.3	(Z)	.1	84.5	2.4	-	1.1	3.8	8
3953	MARKING DEVICES	-	-	.2	.3	.1	(D)	71.6	1.7	(D)	.6	2.2	19
3955	CARBON PAPER AND INKED RIBBONS	-	-	.5	.9	(Z)	(D)	68.7	2.1	-	.9	3.0	11
396	COSTUME JEWELRY AND NOTIONS	-	-	.0	2.3	(D)	(D)	426.5	14.8	(D)	4.6	19.4	10
3961	COSTUME JEWELRY	-	-	.3	.7	.2	.5	127.4	4.8	(D)	1.7	7.3	1
3962	ARTIFICIAL FLOWERS	-	-	.1	.2	(D)	(D)	18.8	.8	-	.5	1.7	16
3963	BUTTONS	-	-	.1	.1	.1	.2	43.5	1.4	-	.5	1.9	10
3964	NEEDLES, PINS, AND FASTENERS	-	-	.5	1.2	.1	.3	236.5	7.9	-	1.9	8.8	14

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977												
		Purchased fuels and electric energy		Purchased fuels		Fuel oil				Bituminous coal, lignite, and anthracite		Standard error of estimate (percent) for columns[1]		
						Distillate		Residual						
		British thermal units (trillions)	Cost (million dollars)	British thermal units (trillions)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 barrels)	Cost (million dollars)	Quantity (1,000 short tons)	Cost (million dollars)	F	H	J
		A	B	C	D	E	F	G	H	I	J			
39	MISC. MANUFACTURING INDUS.--CON.													
399	MISCELLANEOUS MANUFACTURES	19.8	72.9	14.7	29.8	332.8	5.5	245.3	3.5	53.4	1.7	14	4	1
3991	BROOMS AND BRUSHES	1.5	7.3	.8	1.9	26.2	.4	(D)	(D)	-	-	10	(X)	(X)
3993	SIGNS AND ADVERTISING DISPLAYS	5.1	19.3	3.8	7.6	93.5	1.5	(D)	(D)	(D)	(Z)	41	(X)	1
3995	BURIAL CASKETS	1.9	6.8	1.5	3.1	59.8	1.1	(D)	(D)	(D)	(D)	39	(X)	(X)
3996	HARD SURFACE FLOOR COVERINGS	3.8	11.8	3.1	6.3	(D)	(D)	(D)	(D)	(D)	(D)	(X)	(X)	(X)
3999	MANUFACTURING INDUSTRIES, NEC	7.4	27.7	5.4	11.0	(D)	(D)	54.7	.9	(D)	(D)	(X)	10	(X)

See footnotes at end of table.

Table 3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976—Con.

(For explanation of terms, see appendix B)

SIC code	Industry group and industry	1977--Con.									1976, purchased fuels and electric energy		Standard error of estimate (percent) for column[1]--
		Coke and breeze		Natural gas				Electric energy					
								Purchased					
		Quantity (1,000 short tons)	Cost (million dollars)	Quantity (billion cubic ft.)	Cost (million dollars)	Other fuels (mil. dol.)	Fuels not specified by kind (mil. dol.)	Quantity (million kWh)	Cost (million dollars)	Generated less sold (million kWh)	British thermal units (trillions)	Cost (million dollars)	
		K	L	M	N	O	P	Q	R	S	T	U	N
39	MISC. MANUFACTURING INDUS--CON.												
390	MISCELLANEOUS MANUFACTURES	-	-	9.7	11.0	(D)	5.4	1,496.2	43.1	(S)	18.4	62.3	6
3991	BROOMS AND BRUSHES	-	-	(D)	(D)	.2	(D)	192.3	5.5	-	1.3	6.2	(X)
3993	SIGNS AND ADVERTISING DISPLAYS	-	-	(D)	(D)	1.2	1.0	391.0	11.7	(D)	4.9	17.4	(X)
3995	BURIAL CASKETS	-	-	.7	1.3	.3	.2	119.9	3.6	(D)	1.9	5.8	11
3996	HARD SURFACE FLOOR COVERINGS	-	-	(D)	(D)	(D)	(D)	220.2	5.5	-	3.3	9.0	(X)
3999	MANUFACTURING INDUSTRIES, NEC	-	-	1.9	3.7	(D)	3.8	572.7	16.7	(S)	7.0	24.0	8

- Represents zero. (D) Withheld to avoid disclosure of figures for individual companies. (S) Withheld because the estimate did not meet publication standards, either on the basis of the associated standard error of the estimate or on the basis of a consistency review. (X) Not applicable. (Z) Less than half of the unit of measure specified.

[1]Standard error of estimate is described in appendix A. Cost of fuels (col. D) and purchased electric energy (col. Q and R) were collected from all establishments in the 1977 Census of Manufactures. The figures shown for these items are census totals; therefore, sampling standard errors do not apply. Standard errors of estimates for the cost of coke for the 20 industries that reported this fuel and standard errors of estimates for "other fuels" are not shown in this table. Standard errors for "other fuels" are generally higher, and may sometimes be considerably higher than those for specified kinds of fuels for which standard errors of estimates are shown. Standard error for cost of coke consumed is less than 1 percent at "all industries" level. Estimated standard errors for the six most important coke consuming industries, which collectively account for 96 percent of total cost of coke consumed, are:

Industry	Standard error of estimate (percent)	Industry	Standard error of estimate (percent)
3296	3	3321	2
3312	1	3332	1
3316	1	3714	1

[2]Data presented in this table supersede 1976 published data. Data were revised as a result of adjustments to estimating technique. For a complete discussion of these adjustments see appendix A, Method of Estimation.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1978 Revised

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)		D	G
		A	B	C	D	E	F	G	H	D	G
	All industries	12,776.3	28,138.5	10,592.1	15,959.5	748.8	640,164.6	12,179.1	63,843.9	1	1
20	Food and kindred products	945.0	2,173.5	811.8	1,270.2	104.4	39,040.8	903.4	2,580.4	1	1
21	Tobacco products	20.2	54.8	16.4	28.1	(D)	1,122.4	26.7	(D)	2	1
22	Textile mill products	336.7	1,009.0	240.2	418.0	(D)	28,276.6	591.0	474.1	2	1
23	Apparel and other textile products	62.0	245.3	37.8	69.1	(D)	7,119.9	176.2	(S)	3	2
24	Lumber and wood products	235.7	640.0	180.6	332.8	(D)	16,158.4	307.2	313.8	3	2
25	Furniture and fixtures	49.7	168.2	35.7	63.6	12.5	4,100.1	104.7	49.9	2	2
26	Paper and allied products	1,300.2	2,526.6	1,151.5	1,752.6	30.6	43,555.2	774.1	25,490.2	1	1
27	Printing and publishing	88.8	362.6	53.4	94.5	(D)	10,377.1	268.0	(S)	2	2
28	Chemicals and allied products	2,989.3	5,430.6	2,489.3	3,129.2	68.3	146,545.4	2,301.4	14,800.1	1	1
29	Petroleum and coal products	1,304.8	2,108.2	1,209.3	1,624.2	30.4	27,973.2	484.9	3,934.2	1	1
30	Rubber and miscellaneous plastics products	250.3	765.3	181.2	289.4	38.4	20,248.9	476.0	482.3	1	2
31	Leather and leather products	22.6	71.7	17.5	31.6	4.1	1,522.7	40.1	14.8	5	3
32	Stone, clay, and glass products	1,226.9	2,167.8	1,127.4	1,534.2	75.5	29,165.8	633.6	510.7	1	1
33	Primary metal industries	2,470.6	5,752.2	1,964.8	3,517.6	54.6	148,250.1	2,234.6	13,698.1	1	1
34	Fabricated metal products	382.6	1,128.7	296.7	499.0	54.6	25,180.8	629.8	445	2	2
35	Machinery, except electric	339.3	1,098.9	242.1	405.6	51.1	28,489.9	693.2	355.1	1	1
36	Electric and electronic equipment	241.5	824.5	160.0	263.2	27.8	23,888.7	561.3	50.9	1	1
37	Transportation equipment	385.0	1,195.8	283.6	473.7	16.0	29,712.1	722.0	(S)	1	1
38	Instruments and related products	76.7	239.3	58.6	97.8	(D)	5,321.6	141.6	(D)	1	2
39	Miscellaneous manufacturing industries	48.3	175.5	34.2	65.2	(D)	4,114.8	110.3	(S)	4	2
20	Food and kindred products	945.0	2,173.5	811.8	1,270.2	104.4	39,040.8	903.4	2,580.4	1	1
201	Meat products	104.1	274.9	80.9	125.2	(D)	6,821.4	149.7	192.9	2	2
2011	Meatpacking plants	65.5	155.0	53.0	77.8	10.4	3,652.1	77.2	(D)	2	2
2013	Sausages and other prepared meats	17.0	55.1	12.2	21.0	(D)	1,421.3	34.1	(D)	6	3
2016	Poultry dressing plants	17.8	53.9	12.7	21.6	3.7	1,487.6	32.3	(D)	3	3
2017	Poultry and egg processing	3.8	10.9	2.9	4.8	(D)	260.4	6.1	(D)	8	6
202	Dairy products	92.4	253.9	74.0	125.1	16.1	5,414.4	128.8	(S)	3	3
2021	Creamery butter	5.1	12.1	4.5	7.6	(D)	177.7	4.5	-	10	28
2022	Cheese, natural and processed	21.7	49.7	18.2	31.2	(D)	849.8	18.6	(S)	4	3
2023	Condensed and evaporated milk	20.6	42.4	18.9	30.1	(D)	484.5	12.2	(S)	3	4
2024	Ice cream and frozen desserts	6.7	29.3	3.7	6.6	(D)	857.4	22.7	(D)	8	6
2026	Fluid milk	38.4	120.3	28.0	49.6	8.9	3,045.1	70.7	(S)	7	4
203	Preserved fruits and vegetables	126.1	297.9	108.6	184.8	12.1	5,135.5	113.1	60.9	2	2
2032	Canned specialties	19.9	41.7	18.2	30.6	(D)	484.8	11.1	(D)	4	5
2033	Canned fruits and vegetables	46.0	102.9	41.6	70.4	(D)	1,270.1	32.6	(D)	3	4
2034	Dehydrated fruits, vegetables, soup	13.6	28.4	12.0	20.7	3.0	476.9	7.7	-	3	3
2035	Pickles, sauces, and salad dressing	6.3	16.4	5.4	9.7	1.9	257.2	6.8	(D)	5	5
2037	Frozen fruits and vegetables	28.6	69.3	23.3	39.5	(S)	1,554.8	29.7	(D)	3	4
2038	Frozen specialties	11.8	39.2	8.1	14.0	2.2	1,091.7	25.3	(S)	3	3
204	Grain Mill products	151.2	313.0	130.2	176.7	(D)	6,149.2	136.3	805.4	2	2
2041	Flour and other grain mill products	10.9	41.7	5.5	8.2	.7	1,599.3	33.5	(Z)	5	3
2043	Cereal breakfast foods	9.3	24.2	7.5	12.6	(S)	504.2	11.6	(D)	1	2
2044	Rice milling	3.6	10.3	2.6	4.8	.1	274.4	5.5	(D)	2	7
2045	Blended and prepared flour	1.6	5.7	.9	1.6	(S)	192.4	4.1	(D)	13	7
2046	Wet corn milling	83.0	123.2	78.4	95.0	.3	1,368.1	28.2	761.5	1	1
2047	Dog, cat, and other pet food	12.4	31.6	10.1	16.1	.2	688.7	15.6	(D)	6	5
2048	Prepared feeds, n.e.c	30.4	76.3	25.2	38.4	12.0	1,522.2	37.9	(S)	9	4
205	Bakery products	50.8	135.5	42.1	72.7	(D)	2,553.0	62.8	(S)	4	4
2051	Bread, cake, and related products	39.9	106.0	33.0	56.3	(D)	2,015.3	49.8	(S)	4	5
2052	Cookies and crackers	10.9	29.5	9.1	16.4	(S)	537.7	13.1	(S)	5	5
206	Sugar and confectionery products	160.2	274.0	153.2	222.4	6.4	2,029.4	51.6	1,249.2	2	2
2061	Raw cane sugar	12.9	27.4	12.4	23.6	1.9	150.0	3.8	(D)	15	4
2062	Cane sugar refining	33.8	60.3	33.3	57.2	(D)	125.8	3.1	372.3	1	1
2063	Beet sugar	93.4	120.9	92.3	114.7	1.3	319.4	6.2	528.8	1	1
2065	Confectionery products	14.2	44.4	10.8	18.3	2.8	1,019.6	26.1	(D)	4	4
2066	Chocolate and cocoa products	4.4	15.5	3.4	6.4	(D)	311.6	9.1	-	1	2
2067	Chewing gum	1.4	5.5	1.1	2.1	(D)	102.8	3.4	-	1	1
207	Fats and oils	105.7	220.7	94.3	146.8	10.1	3,331.2	73.8	69.3	3	3
2074	Cottonseed oil mills	6.4	17.5	4.6	6.2	(D)	513.2	11.3	-	12	12
2075	Soybean oil mills	46.8	93.3	41.9	64.3	.7	1,433.1	29.0	(D)	1	1
2076	Vegetable oil mills, n.e.c	2.9	6.8	2.5	4.1	.6	106.3	2.7	-	2	6
2077	Animal and marine fats and oils	23.6	52.6	21.2	35.3	6.8	686.6	17.3	(S)	10	8
2079	Shortening and cooking oils	26.1	50.4	24.1	36.9	(D)	592.0	13.5	(S)	2	6
208	Beverages	100.2	243.7	85.4	139.3	(D)	4,326.1	104.4	183.6	2	2
2082	Malt beverages	45.2	108.4	38.6	65.8	(D)	1,945.5	42.6	171.5	4	3
2083	Malt	9.3	19.1	8.2	12.1	(D)	329.0	7.0	1.4	7	5
2084	Wines, brandy, and brandy spirits	4.2	11.4	3.4	5.5	1.0	245.1	5.9	(D)	7	10
2085	Distilled liquor, except brandy	15.3	25.6	14.3	18.8	.6	282.3	6.8	(D)	4	4
2086	Bottled and canned soft drinks	22.0	67.2	17.6	31.0	(D)	1,312.4	36.3	(S)	5	4
2087	Flavoring extracts and sirups, n.e.c	4.1	11.9	3.4	6.2	.5	211.8	5.7	(S)	7	6

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 (Revised)—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
20	Food and kindred products--Con.										
209	Miscellaneous foods and kindred products...	54.3	160.0	43.1	77.3	12.0	3,280.7	82.7	(S)	3	5
2091	Canned and cured seafoods...	3.7	10.4	3.2	6.5	1.2	134.6	3.9	(S)	10	11
2092	Fresh or frozen packaged fish...	4.5	16.9	3.2	6.3	2.3	390.3	10.6	(S)	5	9
2095	Roasted coffee...	11.1	29.8	9.4	18.1	1.2	480.1	11.7	-	1	2
2097	Manufactured ice...	2.5	15.0	.3	.5	(D)	653.3	14.5	(S)	32	25
2098	Macaroni and spaghetti...	2.3	8.9	1.5	2.8	(D)	252.4	6.1	-	15	23
2099	Food preparations, n.e.c...	30.2	79.1	25.5	43.1	6.4	1,369.9	35.9	(D)	4	4
21	Tobacco products...	20.2	54.8	16.4	28.1	(D)	1,122.4	26.7	(D)	2	1
2111	Cigarettes...	12.0	30.6	9.7	15.8	(Z)	662.7	14.8	(D)	1	1
2121	Cigars...	.7	2.8	.5	.9	(D)	71.0	1.9	-	4	4
2131	Chewing and smoking tobacco...	.9	2.5	.8	1.4	(D)	40.9	1.2	-	9	5
2141	Tobacco stemming and redrying...	6.5	18.9	5.4	10.1	1.0	347.7	8.8	(S)	3	3
22	Textile mill products...	336.7	1,009.0	240.2	418.0	(D)	28,276.6	591.0	474.1	2	1
2211	Weaving mills, cotton...	33.4	113.7	18.8	28.7	.7	4,267.3	85.1	184.0	1	1
2221	Weaving mills, manmade fiber and silk...	53.5	187.7	29.3	49.7	2.4	7,070.8	138.0	73.6	1	2
2231	Weaving and finishing mills, wool...	6.4	18.6	5.1	9.4	(D)	376.8	9.1	(D)	19	16
2241	Narrow fabric mills...	3.9	14.8	2.3	4.5	.9	470.6	10.3	(S)	6	7
225	Knitting mills...	56.8	167.4	43.6	84.0	13.8	3,882.9	83.5	(S)	3	2
2251	Women's hosiery, except socks...	4.8	17.4	2.9	5.5	.7	542.0	11.9	(D)	4	4
2252	Hosiery, n.e.c...	3.6	12.0	2.6	5.3	(D)	291.4	6.7	(D)	12	10
2253	Knit outerwear mills...	9.5	30.9	7.0	14.0	5.2	727.3	16.9	(S)	5	4
2254	Knit underwear mills...	3.5	9.4	2.8	4.6	.4	218.5	4.8	-	5	4
2257	Circular knit fabric mills...	23.6	64.2	19.0	36.7	(D)	1,354.4	27.5	(S)	6	4
2258	Warp knit fabric mills...	11.5	32.3	9.0	17.4	(D)	722.9	14.9	(S)	4	4
2259	Knitting mills, n.e.c...	.3	1.3	.2	.5	(D)	26.4	.8	-	13	12
226	Textile finishing, except wool...	75.7	164.2	69.2	119.9	8.0	1,899.1	44.3	173.3	2	3
2261	Finishing plants, cotton...	26.2	53.7	24.5	41.7	2.4	511.6	12.0	(D)	3	5
2262	Finishing plants, manmade fiber and silk.	41.3	88.2	37.9	65.0	4.2	989.3	23.2	115.5	2	5
2269	Finishing plants, n.e.c...	8.2	22.3	6.8	13.1	1.4	398.2	9.2	(D)	6	5
227	Floor covering mills...	30.9	68.6	27.2	41.9	(D)	1,094.0	26.7	(D)	3	2
2271	Woven carpets and rugs...	2.1	5.5	1.8	3.0	(D)	100.7	2.5	-	4	6
2272	Tufted carpets and rugs...	28.1	60.9	24.9	37.9	5.6	950.7	22.9	(D)	3	2
2279	Carpets and rugs, n.e.c...	.7	2.3	.5	1.0	(D)	42.6	1.3	-	10	5
228	Yarn and thread mills...	45.1	177.8	21.1	36.6	2.0	7,015.0	141.2	(D)	2	2
2281	Yarn mills, except wool...	23.7	103.6	8.9	15.7	(D)	4,345.9	87.9	(D)	2	2
2282	Throwing and winding mills...	15.9	55.4	8.6	14.3	1.4	2,123.7	41.0	(D)	2	3
2283	Wool yarn mills...	1.7	6.2	1.1	2.0	(D)	169.4	4.1	(D)	15	13
2284	Thread mills...	3.8	12.6	2.5	4.5	(D)	376.0	8.1	-	3	2
229	Miscellaneous textile goods...	31.0	96.2	23.5	43.3	(D)	2,200.1	52.9	(D)	8	3
2291	Felt goods, except woven and hats...	1.3	3.9	1.1	2.0	.2	68.8	1.9	(D)	9	10
2292	Lace goods...	.7	1.9	.6	1.2	(D)	21.0	.6	-	23	19
2293	Paddings and upholstery filling...	1.8	5.4	1.5	2.5	.7	106.7	2.9	-	6	8
2294	Processed textile waste...	.8	3.2	.5	1.2	.3	84.0	2.1	-	27	28
2295	Coated fabrics, not rubberized...	9.9	27.3	8.5	15.9	(D)	414.1	11.5	-	20	10
2296	Tire cord and fabric...	4.7	18.5	2.2	3.3	(Z)	752.3	15.2	(D)	1	1
2297	Nonwoven fabrics...	5.8	17.1	4.6	8.4	.7	339.7	8.7	(Z)	4	2
2298	Cordage and twine...	1.5	5.9	.9	1.8	(D)	182.1	4.1	(D)	10	9
2299	Textile goods, n.e.c...	4.4	12.8	3.6	7.0	(D)	231.4	5.8	(D)	12	7
23	Apparel and other textile products...	62.0	245.3	37.8	69.1	(D)	7,119.9	176.2	(S)	3	2
2311	Men's and boys' suits and coats...	5.3	20.8	3.7	7.3	2.6	458.5	13.5	(S)	6	3
232	Men's and boys' furnishings...	12.7	52.9	7.0	12.4	5.1	1,672.3	40.5	3.3	4	3
2321	Men's and boys' shirts, nightwear...	3.0	14.3	1.4	2.7	.4	478.8	11.5	(D)	10	4
2322	Men's and boys' underwear...	.5	2.0	.3	.6	(D)	53.5	1.4	-	6	4
2323	Men's, boys' neckwear...	.3	1.1	.1	.3	.2	41.5	.9	(S)	60	45
2327	Men's, boys' separate trousers...	3.6	13.8	2.2	3.5	(D)	432.2	10.3	(D)	4	4
2328	Men's and boys' work clothing...	3.3	13.7	1.8	3.0	1.3	448.5	10.7	(D)	5	3
2329	Men's and boys' clothing, n.e.c...	2.0	8.1	1.2	2.3	(D)	217.8	5.8	(D)	9	9
233	Women's and misses' outerwear...	16.1	73.0	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)
2331	Women's and misses' blouses and waists...	3.1	12.0	(S)	(S)	(D)	(S)	(S)	(S)	(X)	(X)
2335	Women's and misses' dresses...	6.8	31.0	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)
2337	Women's and misses' suits and coats...	2.8	14.5	(S)	(S)	(S)	(S)	(S)	(S)	(X)	(X)
2339	Women's and misses' outerwear, n.e.c...	3.3	15.5	(S)	(S)	(D)	(S)	(S)	(S)	(X)	(X)
234	Women's and children's undergarments...	2.9	14.4	1.2	2.3	(S)	490.4	12.1	(D)	11	3
2341	Women's and children's underwear...	2.3	10.9	1.0	1.8	(S)	385.8	9.1	(D)	12	4
2342	Brassieres and allied garments...	.6	3.5	.2	.5	.1	104.6	3.0	(S)	24	6

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
23	Apparel and other textile products--Con.										
235	Hats, caps, and millinery	1.3	3.8	1.0	1.8	(D)	72.1	2.0	-	24	19
2351	Millinery	.1	.3	.1	.1	.1	9.1	.2	-	52	42
2352	Hats and caps, except millinery	1.1	3.5	.9	1.6	(D)	63.0	1.8	-	26	21
236	Children's outerwear	2.5	11.2	1.3	2.6	(D)	364.7	8.6	(S)	12	10
2361	Children's dresses and blouses	1.4	5.2	.9	1.9	(D)	140.5	3.3	(Z)	11	10
2363	Children's coats and suits	.1	.6	(S)	(S)	(D)	26.4	.6	-	(X)	21
2369	Children's outerwear, n.e.c	1.0	5.4	(S)	(S)	(D)	197.8	4.8	(S)	(X)	17
2371	Fur goods	.4	1.1	(S)	(S)	(S)	(S)	(S)	-	(X)	(X)
238	Miscellaneous apparel and accessories	2.3	9.6	1.4	2.5	.7	268.9	7.1	(S)	9	7
2381	Fabric dress and work gloves	.4	1.5	.3	.6	(D)	30.1	.9	-	19	13
2384	Robes and dressing gowns	.3	1.2	.2	.3	(D)	37.6	.9	-	4	14
2385	Waterproof outer garments	.6	2.7	(S)	(S)	(S)	73.3	2.1	(D)	(X)	16
2386	Leather and sheep lined clothing	.3	1.3	.2	.3	(D)	43.3	.9	(S)	34	24
2387	Apparel belts	.3	1.6	.1	.2	(D)	56.8	1.4	(Z)	6	14
2389	Apparel and accessories, n.e.c	.3	1.4	.3	.4	.1	27.8	.9	(Z)	11	16
239	Miscellaneous fabricated textile products	18.6	58.5	13.6	23.9	6.2	1,447.9	34.6	(S)	4	4
2391	Curtains and draperies	1.6	6.5	.9	1.7	1.0	210.0	4.8	-	23	11
2392	House furnishing, n.e.c	6.7	22.7	7.1	11.8	2.5	492.5	10.9	(D)	4	4
2393	Textile bags	.8	2.7	.6	1.1	(D)	70.8	1.6	-	22	28
2394	Canvas and related products	.6	1.8	.5	.8	(D)	43.8	1.1	(D)	19	15
2395	Pleating and stitching	.9	3.9	.6	1.2	(D)	104.7	2.7	(Z)	49	20
2396	Automotive and apparel trimmings	2.6	9.6	1.7	3.2	.7	259.1	6.5	(S)	10	9
2397	Schiffli machine embroideries	.3	1.5	.2	.4	(D)	42.1	1.1	-	45	17
2399	Fabricated textile products, n.e.c	3.0	9.7	2.2	3.9	(D)	225.0	5.8	-	8	6
24	Lumber and wood products	235.7	640.0	180.6	332.8	(D)	16,158.4	307.2	313.8	3	2
2411	Logging camps and logging contractors	38.9	87.6	37.6	81.1	26.6	363.7	6.6	(S)	9	9
242	Sawmills and planing mills	74.6	226.5	49.3	94.1	(D)	7,412.2	132.4	182.5	5	3
2421	Sawmills and planing mills, general	68.2	203.2	45.3	86.7	(D)	6,709.8	116.5	173.8	5	4
2426	Hardwood dimension and flooring	4.9	18.8	2.8	5.3	1.7	602.7	13.5	(D)	17	9
2429	Special product sawmills, n.e.c	1.5	4.5	1.2	2.2	1.4	99.7	2.3	(D)	47	24
243	Millwork, plywood and structural members	53.8	143.2	39.7	67.7	8.9	4,117.1	75.5	49.4	3	2
2431	Millwork	9.5	30.7	6.2	10.7	3.2	955.7	20.0	(D)	8	6
2434	Wood kitchen cabinets	3.9	12.3	2.7	4.9	1.8	336.8	7.4	(Z)	9	9
2435	Hardwood veneer and plywood	5.7	16.7	4.2	6.7	.2	433.2	10.0	(D)	17	8
2436	Softwood veneer and plywood	33.0	78.8	25.2	42.8	2.4	2,285.6	36.0	(D)	2	1
2439	Structural wood members, n.e.c	1.7	4.8	1.4	2.6	1.3	105.8	2.2	(D)	12	9
244	Wood containers	4.1	14.4	3.0	5.6	(D)	330.3	8.8	(D)	19	16
2441	Nailed wood boxes and shook	1.0	3.5	.6	.9	(D)	111.9	2.6	(D)	48	33
2448	Wood pallets and skids	1.6	5.1	1.3	2.9	(D)	82.9	2.2	(S)	32	30
2449	Wood containers, n.e.c	1.5	5.8	1.1	1.8	.6	135.6	4.0	(D)	17	21
245	Wood buildings and mobile homes	5.9	18.1	4.7	8.3	(D)	364.4	9.8	(S)	4	3
2451	Mobile homes	3.4	11.3	2.5	4.4	(D)	251.7	6.9	(D)	6	4
2452	Prefabricated wood buildings	2.5	6.8	2.1	3.9	(D)	112.7	2.9	(D)	7	5
249	Miscellaneous wood products	58.5	150.1	46.3	76.0	9.7	3,570.7	74.2	72.0	2	2
2491	Wood preserving	8.4	17.1	7.9	12.9	2.6	146.5	4.2	-	9	10
2492	Particleboard	8.3	24.7	5.4	8.8	(Z)	854.0	15.9	-	4	3
2499	Wood products, n.e.c	41.8	108.3	33.0	54.3	7.1	2,570.2	54.0	72.0	2	3
25	Furniture and fixtures	49.7	168.2	35.7	63.6	12.5	4,100.1	104.7	49.9	2	2
251	Household furniture	30.3	107.8	20.7	38.2	8.7	2,799.7	69.7	32.7	3	2
2511	Wood household furniture	16.6	61.1	11.1	21.1	3.7	1,603.9	40.0	(D)	4	2
2512	Upholstered household furniture	5.6	19.4	4.0	7.4	2.6	488.3	11.9	(D)	6	4
2514	Metal household furniture	3.4	10.7	2.5	4.2	(D)	257.6	6.6	(D)	5	5
2515	Mattresses and bedsprings	2.7	8.5	2.1	3.5	1.0	193.8	5.0	(D)	9	6
2517	Wood TV and radio cabinets	1.0	3.8	.7	1.2	.3	106.9	2.6	-	9	14
2519	Household furniture, n.e.c	.9	4.3	.4	.7	(D)	149.2	3.6	(D)	18	14
252	Office furniture	6.4	19.7	5.0	8.3	1.4	419.8	11.3	(D)	3	3
2521	Wood office furniture	1.4	5.1	1.0	1.8	.5	114.7	3.4	-	7	7
2522	Metal office furniture	5.0	14.5	3.9	6.6	.9	305.1	8.0	(D)	3	2
2531	Public building and related furniture	2.7	8.1	2.2	3.5	(S)	170.7	4.7	(D)	11	8
254	Partitions and fixtures	7.3	22.7	5.7	9.6	1.5	496.2	13.0	(D)	5	6
2541	Wood partitions and fixtures	2.8	9.9	2.0	3.7	1.3	229.5	6.2	(D)	9	9
2542	Metal partitions and fixtures	4.6	12.8	3.7	5.9	.2	266.6	6.9	(Z)	6	8

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
	Furniture and fixtures--Con.										
259	Miscellaneous furniture and fixtures	3.0	9.9	2.3	4.0	1.1	213.8	5.9	-	6	6
2591	Drapery hardware and blinds and shades	1.4	4.7	1.0	1.9	(D)	99.6	2.8	-	4	6
2599	Furniture and fixtures, n.e.c.	1.6	5.2	1.3	2.1	(D)	114.2	3.1	-	10	10
26	Paper and allied products	1,300.2	2,526.6	1,151.5	1,752.6	30.6	43,555.2	774.1	25,490.2	1	1
2611	Pulpmills	96.0	176.8	86.4	136.4	(S)	2,830.3	40.4	2,533.0	1	3
2621	Papermills, except building paper	592.3	1,118.0	520.6	769.7	11.2	21,013.2	348.3	12,646.0	1	1
2631	Paperboard mills	467.4	826.4	432.3	659.3	1.4	10,302.0	167.1	10,131.0	1	1
264	Miscellaneous converted paper products	55.6	169.5	40.0	68.7	5.6	4,582.0	100.8	63.2	3	3
2641	Paper coating and glazing	16.6	46.0	13.4	24.0	2.1	938.3	22.0	(D)	3	4
2642	Envelopes	2.4	10.8	1.3	2.4	.7	326.8	8.4	(D)	7	7
2643	Bags, except textile bags	8.3	28.2	4.5	7.2	(S)	1,105.9	20.9	2.6	4	6
2645	Die-cut paper and board	3.4	8.5	2.8	4.1	(Z)	177.9	4.4	(D)	5	8
2646	Pressed and molded pulp goods	8.1	20.8	6.0	9.4	.7	610.5	11.4	(D)	1	2
2647	Sanitary paper products	10.2	31.9	7.2	12.6	1.3	877.6	19.3	31.7	3	3
2648	Stationery products	1.4	5.4	.9	1.8	.7	136.5	3.6	-	10	13
2649	Converted paper products, n.e.c.	5.3	18.0	3.9	7.2	.5	408.5	10.8	(D)	22	16
265	Paperboard containers and boxes	52.9	162.8	41.3	72.8	10.7	3,411.6	90.0	(D)	2	2
2651	Folding paperboard boxes	6.8	24.3	4.8	8.2	.9	591.4	16.1	(D)	3	4
2652	Setup paperboard boxes	1.3	4.6	.9	1.7	.4	125.0	2.9	(D)	26	15
2653	Corrugated and solid fiber boxes	34.7	96.5	28.9	50.9	7.8	1,702.1	45.6	16.0	2	2
2654	Sanitary food containers	7.3	27.6	4.7	8.3	1.1	765.5	19.4	(D)	2	3
2655	Fiber cans, drums, and similar products	2.9	9.8	2.1	3.8	.5	227.6	6.0	(D)	6	4
2661	Building paper and board mills	35.8	73.1	31.0	45.6	2.5	1,416.0	27.5	63.0	3	5
27	Printing and publishing	88.8	362.6	53.4	94.5	(D)	10,377.1	268.0	(S)	2	2
2711	Newspapers	18.5	88.8	9.7	18.4	(D)	2,571.5	70.5	(S)	4	3
2721	Periodicals	3.3	14.5	1.8	3.2	1.4	444.1	11.3	(S)	7	4
273	Books	7.2	27.5	4.2	7.3	(D)	884.7	20.2	(D)	4	6
2731	Book publishing	2.5	9.6	1.5	2.5	(D)	289.7	7.2	(D)	7	4
2732	Book printing	4.7	17.8	2.7	4.9	.8	594.9	13.0	(S)	5	9
2741	Miscellaneous publishing	1.8	8.2	.9	1.4	(D)	258.0	6.8	(S)	17	8
275	Commercial printing	45.9	170.3	30.0	52.3	12.6	4,655.2	117.9	34.5	4	3
2751	Commercial printing, letterpress	15.6	58.6	10.0	17.4	4.9	1,642.3	41.3	(S)	6	6
2752	Commercial printing, lithograph	24.0	91.2	15.4	26.3	6.5	2,533.4	65.0	(S)	6	4
2753	Engraving and plate printing	.9	3.3	.6	1.1	.3	(S)	(S)	(Z)	16	(X)
2754	Commercial printing, gravure	5.4	17.1	4.1	7.6	1.0	400.4	9.5	(D)	1	4
2761	Manifold business forms	4.3	18.5	2.3	3.9	(D)	596.0	14.6	(S)	5	5
2771	Greeting card publishing	1.3	5.4	.8	1.2	.2	154.0	4.2	-	6	9
278	Blankbooks and bookbinding	3.2	13.7	2.0	3.7	(D)	354.4	10.0	(S)	6	11
2782	Blankbooks and looseleaf binders	1.9	7.9	1.2	2.2	(D)	203.3	5.6	(S)	7	6
2789	Bookbinding and related work	1.3	5.8	.8	1.5	.7	151.1	4.4	(S)	11	24
279	Printing trade services	3.2	15.7	1.6	3.1	1.1	459.3	12.6	(S)	12	8
2791	Typesetting	1.2	6.6	.6	1.0	(D)	194.0	5.6	(Z)	24	11
2793	Photoengraving	.6	3.5	.2	.5	.1	116.2	2.9	(D)	34	20
2794	Electrotyping and sterotyping	.1	.5	.1	.2	(D)	10.2	.3	(S)	36	22
2795	Lithograph platemaking services	1.2	5.2	.7	1.4	.4	138.9	3.8	(S)	15	12
28	Chemicals and allied products	2,989.3	5,430.6	2,489.3	3,129.2	68.3	146,545.4	2,301.4	14,800.1	1	1
281	Industrial inorganic chemicals	706.4	1,697.5	422.1	539.6	8.9	83,313.1	1,158.0	4,761.9	1	1
2812	Alkalies and chlorine	145.7	311.9	101.8	129.6	(D)	12,887.3	182.4	2,616.9	1	1
2813	Industrial gases	90.7	262.8	51.9	64.4	2.7	11,364.2	198.4	(D)	2	1
2816	Inorganic pigments	46.8	95.4	41.8	64.2	(D)	1,446.1	31.2	(D)	2	6
2819	Industrial inorganic chemicals, n.e.c.	423.2	1,027.4	226.6	281.4	4.5	57,617.6	746.0	2,031.5	1	1
282	Plastics materials and synthetics	401.4	812.3	343.8	510.4	7.2	16,869.8	301.9	(D)	1	1
2821	Plastics materials and resins	171.0	379.1	142.8	225.7	5.2	8,281.4	153.3	129.2	1	1
2822	Synthetic rubber	41.0	81.5	36.5	61.4	.6	1,313.3	20.1	-	1	2
2823	Cellulosic manmade fibers	56.7	71.6	55.0	62.1	.2	523.7	9.6	(D)	1	1
2824	Organic fibers, noncellulosic	132.6	280.1	109.5	161.2	1.2	6,751.3	118.9	655.5	1	1
283	Drugs	67.1	187.7	55.3	99.4	(D)	3,465.3	88.3	156.8	1	2
2831	Biological products	2.7	9.8	1.9	3.2	(D)	245.2	6.7	-	2	5
2833	Medicinals and botanicals	26.1	60.4	23.4	41.5	(D)	777.2	18.9	(D)	1	5
2834	Pharmaceutical preparations	38.3	117.4	30.0	54.7	1.6	2,442.9	62.7	(D)	1	1

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power, by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
28	Chemicals and allied products--Con.										
284	Soaps, cleaners, and toilet goods	49.0	125.5	41.8	69.7	(D)	2,090.8	55.8	(D)	5	8
2841	Soap and other detergents	25.0	55.3	22.4	35.4	(D)	766.9	19.9	(D)	3	2
2842	Polishes and sanitation goods	7.4	22.2	6.0	9.4	5.1	410.3	12.8	(S)	35	32
2843	Surface active agents	10.4	25.4	9.2	17.1	(D)	344.7	8.3	(D)	4	6
2844	Toilet preparations	6.2	22.6	4.2	7.7	1.1	568.9	14.8	(D)	3	3
2851	Paints and allied products	18.6	52.2	15.2	24.4	(D)	1,014.8	27.8	(D)	3	3
286	Industrial organic chemicals	1,251.0	1,831.3	1,157.3	1,394.1	18.3	27,487.6	437.2	7,330.1	1	1
2861	Gum and wood chemicals	8.9	17.5	8.3	13.5	1.2	176.6	4.0	62.4	3	8
2865	Cyclic crudes and intermediates	171.8	325.7	155.1	244.6	1.9	4,903.0	81.2	180.2	1	2
2869	Industrial organic chemicals, n.e.c	1,070.4	1,488.1	993.9	1,136.1	15.2	22,408.0	352.0	7,087.5	1	1
287	Agricultural chemicals	385.2	532.7	352.5	360.3	(D)	9,574.5	172.5	647.8	3	2
2873	Nitrogenous fertilizers	289.7	339.2	272.6	257.2	(D)	5,014.4	82.0	441.1	3	2
2874	Phosphatic fertilizers	63.6	126.4	52.5	61.2	.3	3,274.9	65.2	(D)	3	1
2875	Fertilizers, mixing only	4.4	12.5	3.6	6.0	1.6	240.2	6.4	-	12	5
2879	Agricultural chemicals, n.e.c	27.4	54.7	23.8	35.9	(D)	1,045.0	18.8	(D)	2	9
289	Miscellaneous chemical products	110.6	191.4	101.3	131.4	12.8	2,729.5	60.0	192.8	2	2
2891	Adhesives and sealants	8.8	22.7	7.6	12.9	(Z)	368.4	9.8	(D)	14	6
2892	Explosives	19.4	32.5	17.7	23.7	.7	483.3	8.8	(D)	1	1
2893	Printing ink	2.7	8.0	2.0	3.1	1.8	201.8	4.8	-	10	14
2895	Carbon black	28.2	36.1	26.3	26.4	(Z)	537.3	9.8	(D)	1	1
2899	Chemical preparations, n.e.c	51.5	92.0	47.6	65.3	10.3	1,138.7	26.7	130.8	2	3
29	Petroleum and coal products	1,304.8	2,108.2	1,209.3	1,624.2	30.4	27,973.2	484.0	3,934.2	1	1
2911	Petroleum refining	1,229.2	1,954.5	1,138.9	1,510.6	15.1	26,461.7	443.9	(D)	1	1
295	Paving and roofing materials	62.9	129.0	58.6	95.2	14.6	1,270.5	33.7	(D)	6	5
2951	Paving mixtures and blocks	33.8	74.6	31.5	54.6	11.9	684.0	20.0	2.9	9	8
2952	Asphalt felts and coatings	29.1	54.4	27.1	40.7	2.7	586.5	13.8	(D)	3	3
299	Miscellaneous petroleum and coal products	12.7	24.7	11.9	18.4	.7	241.0	6.3	(S)	6	9
2992	Lubricating oils and greases	5.4	12.5	4.9	7.9	(Z)	153.9	4.6	(D)	14	13
2999	Petroleum and coal products, n.e.c	7.4	12.2	7.1	10.5	.7	87.1	1.8	(S)	1	2
30	Rubber and miscellaneous plastics products	250.3	765.3	181.2	289.4	38.4	20,248.9	476.0	482.3	1	2
3011	Tires and inner tubes	75.1	180.8	59.9	88.3	1.1	4,458.8	92.5	(D)	1	1
3021	Rubber and plastics footwear	2.4	9.0	1.8	3.5	.3	193.1	5.6	-	1	3
3031	Reclaimed rubber	.9	2.6	.6	.7	(D)	89.2	1.9	-	1	1
3041	Rubber and plastics hose and belting	13.8	29.4	11.4	14.4	(D)	691.8	15.0	(D)	2	4
3069	Fabricated rubber products, n.e.c	30.6	86.7	23.9	38.6	4.1	1,972.7	48.1	(S)	3	3
3079	Miscellaneous plastics products	127.4	456.9	83.6	144.0	32.6	12,843.4	312.9	195.9	2	2
31	Leather and leather products	22.6	71.7	17.5	31.6	4.1	1,522.7	40.1	14.8	5	3
3111	Leather tanning and finishing	13.1	31.0	11.8	20.4	1.5	375.6	10.6	(D)	7	7
3131	Boot and shoe cut stock and findings	.9	2.9	.7	1.4	.2	57.5	1.5	(S)	17	12
314	Footwear, except rubber	5.4	25.5	3.0	6.1	1.4	698.9	19.4	(D)	4	2
3142	House slippers	.4	1.7	.2	.5	.2	51.2	1.2	(D)	12	10
3143	Men's footwear, except athletic	2.3	10.3	1.3	2.6	.3	278.0	7.7	(D)	2	1
3144	Women's footwear, except athletic	1.8	8.9	1.0	2.0	.5	246.1	6.9	-	6	4
3149	Footwear, except rubber, n.e.c	.9	4.6	.5	1.0	.4	123.6	3.6	-	21	8
3151	Leather gloves and mittens	.3	1.1	.2	.4	(D)	28.3	.7	-	10	14
3161	Luggage	1.2	4.3	.7	1.2	(D)	137.1	3.0	(Z)	10	9
317	Handbags and other personal leather goods	1.2	5.3	.6	1.2	.4	193.9	4.1	(D)	16	12
3171	Women's handbags and purses	.8	3.5	.3	.7	.3	147.4	2.8	(D)	20	17
3172	Personal leather goods, n.e.c	.4	1.7	.2	.5	.1	46.5	1.3	(Z)	25	10
3199	Leather goods, n.e.c	.5	1.7	.4	.9	(Z)	31.4	.9	(S)	36	25
32	Stone, clay, and glass products	1,226.9	2,167.8	1,127.4	1,534.2	75.5	29,165.8	633.6	510.7	1	1
3211	Flat glass	53.7	99.8	49.5	75.5	.1	1,248.2	24.3	(D)	1	1
322	Glass and glassware pressed or blown	214.6	425.1	192.4	293.3	.6	6,501.8	131.9	(D)	1	1
3221	Glass containers	147.5	292.0	132.5	204.3	1.4	4,391.3	87.8	(S)	1	1
3229	Pressed and blown glass, n.e.c	67.1	133.1	59.9	89.0	(S)	2,110.5	44.1	(D)	3	1
3231	Products of purchased glass	18.3	40.1	15.5	21.5	(D)	812.6	18.6	(D)	4	9
3241	Cement, hydraulic	433.0	616.6	401.8	431.5	(D)	9,136.7	185.1	392.9	1	1

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1978, Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)		D	G
		A	B	C	D	E	F	G	H	D	G
32	Stone, clay, and glass products--Con.										
325	Structural clay products	111.7	190.6	106.5	153.2	22.9	1,520.3	37.4	(D)	5	5
3251	Brick and structural clay tile	62.5	103.3	59.6	82.7	15.3	862.9	20.6	(S)	8	8
3253	Ceramic wall and floor tile	6.5	12.3	6.0	8.8	(D)	149.1	3.5	(D)	11	11
3255	Clay refractories	23.7	46.1	22.4	37.2	(D)	355.1	8.9	(Z)	7	6
3259	Structural clay products, n.e.c	18.9	28.9	18.4	24.5	4.5	153.2	4.4	-	14	9
326	Pottery and related products	24.7	50.4	22.6	34.6	4.1	602.0	15.8	(D)	5	5
3261	Nitreous plumbing fixtures	8.3	17.1	7.7	12.2	.1	192.0	4.8	(D)	3	2
3262	Vitreous china food utensils	2.8	5.7	2.6	4.2	.2	53.5	1.5	(Z)	1	1
3263	Fine earthenware food utensils	1.4	3.2	1.3	2.3	.1	31.0	.9	(S)	16	18
3264	Porcelain electrical supplies	6.0	13.6	5.2	7.3	.7	253.8	6.3	-	6	7
3269	Pottery products, n.e.c	6.2	10.8	5.9	8.6	3.0	71.7	2.2	-	17	30
327	Concrete, gypsum, and plaster products	217.9	406.1	205.7	316.6	(D)	3,587.3	89.5	(S)	4	3
3271	Concrete block and brick	15.8	35.0	14.5	25.1	(D)	355.8	9.9	(D)	14	12
3272	Concrete products, n.e.c	20.9	45.8	18.9	31.0	7.7	565.4	14.8	(D)	7	9
3273	Ready-mixed concrete	42.4	107.1	38.7	79.2	12.2	1,086.5	28.0	(S)	7	7
3274	Lime	97.5	142.3	94.7	124.4	(D)	807.0	17.9	-	7	6
3275	Gypsum products	41.5	75.8	38.8	56.8	(D)	772.8	18.9	(D)	1	1
3281	Cut stone and stone products	4.1	13.5	3.1	6.1	2.0	293.0	7.4	(D)	16	11
329	Miscellaneous nonmetallic mineral products	148.9	325.6	130.3	202.1	9.6	5,463.8	123.5	44.7	2	3
3291	Abrasive products	12.7	35.2	9.7	16.0	1.4	877.8	19.2	(D)	2	16
3292	Asbestos products	10.7	30.7	8.7	15.4	.7	585.4	15.4	(D)	2	2
3293	Gaskets, packing, and sealing devices	5.8	17.4	4.4	7.7	.5	408.9	9.8	(D)	5	7
3295	Minerals, ground or treated	37.4	67.1	34.6	46.8	2.0	841.3	20.3	(D)	7	6
3296	Mineral wool	54.4	121.8	47.1	78.1	2.6	2,128.7	43.7	(D)	1	1
3297	Nonclay refractories	19.8	37.4	18.3	27.4	(D)	420.9	10.0	(D)	3	5
3299	Nonmetallic mineral products, n.e.c	8.2	16.0	7.5	10.9	(D)	200.8	5.1	(D)	11	15
33	Primary metal industries	2,470.6	5,752.2	1,964.8	3,517.6	54.6	148,250.1	2,234.6	13,698.1	1	1
331	Blast furnace and basic steel products	1,593.4	3,638.4	1,406.0	2,592.8	18.2	54,939.7	1,045.5	7,756.3	1	1
3312	Blast furnaces and steel mills	1,496.6	3,372.3	1,344.3	2,498.7	12.7	44,658.7	873.6	(D)	1	1
3313	Electrometallurgical products	54.0	140.5	27.6	34.7	.4	7,740.6	105.8	(D)	1	1
3315	Steel wire and related products	14.4	44.2	10.9	18.5	3.3	1,025.7	25.6	(S)	4	4
3316	Cold finishing of steel shapes	16.3	48.0	13.3	24.1	(D)	869.9	24.0	(D)	1	1
3317	Steel pipe and tubes	12.1	33.4	9.9	16.8	(D)	644.7	16.5	(D)	4	5
332	Iron and steel foundries	166.9	605.5	128.1	338.1	6.2	11,367.1	267.4	15.3	2	2
3321	Gray iron foundries	114.3	433.6	91.3	274.9	1.1	6,723.0	158.8	(D)	2	3
3322	Malleable iron foundries	16.0	56.2	11.1	22.5	.2	1,436.7	33.7	-	5	4
3324	Steel investment foundries	3.5	12.1	2.3	4.0	.2	337.6	8.1	-	13	14
3325	Steel foundries, n.e.c	33.1	103.6	23.3	36.8	(D)	2,869.9	66.8	(D)	3	5
333	Primary nonferrous metals	442.5	835.7	214.2	240.4	.7	66,922.6	595.3	5,871.8	1	1
3331	Primary copper	69.5	111.8	63.7	82.4	(Z)	1,709.2	29.4	(D)	1	1
3332	Primary lead	13.3	32.8	12.5	29.2	(Z)	228.4	3.6	(D)	1	1
3333	Primary zinc	26.7	49.5	22.5	30.1	(Z)	1,221.1	19.4	(D)	1	1
3334	Primary Aluminum	297.1	541.8	96.5	70.8	(Z)	58,776.7	470.9	4,785.2	1	1
3339	Primary nonferrous metals, n.e.c	36.0	99.8	19.0	27.8	.7	4,987.2	72.0	(D)	1	1
3341	Secondary nonferrous metals	36.7	76.1	33.8	54.8	7.8	864.3	21.2	(D)	7	6
335	Nonferrous rolling and drawing	155.5	405.0	119.6	186.1	5.2	10,519.7	218.9	69.1	1	1
3351	Copper rolling and drawing	24.5	80.7	17.7	30.4	(D)	2,006.3	50.3	(D)	1	11
3353	Aluminum sheet, plate, and foil	67.4	133.4	55.0	77.7	(S)	3,630.4	55.7	-	1	1
3354	Aluminum extruded products	19.2	49.0	15.7	22.8	1.4	1,044.5	26.2	-	2	3
3355	Aluminum rolling, drawing, n.e.c	8.1	17.4	6.8	12.1	.1	375.0	5.3	-	1	4
3356	Nonferrous wiring and drawing, n.e.c	12.7	36.0	8.9	15.1	2.6	1,114.1	20.9	(D)	2	2
3357	Nonferrous wiredrawing, insulating	23.6	88.5	15.5	27.9	(D)	2,349.4	60.6	(D)	2	2
336	Nonferrous foundries	40.5	105.0	33.3	55.4	5.9	2,111.5	49.6	(D)	11	10
3361	Aluminum foundries	29.0	70.3	24.5	40.3	(D)	1,304.2	30.0	(D)	15	15
3362	Brass, bronze, and copper foundries	4.6	14.7	3.4	5.9	2.3	356.3	8.8	(S)	13	11
3369	Nonferrous foundries, n.e.c	7.0	19.9	5.4	9.1	(D)	450.9	10.8	(D)	9	10
339	Miscellaneous primary metal products	35.0	86.6	29.8	49.9	10.5	1,525.3	36.7	(D)	9	11
3398	Metal heat treating	22.8	50.7	20.0	31.3	6.7	828.0	19.4	(S)	11	17
3399	Primary metal products, n.e.c	12.2	35.9	9.8	18.5	3.8	697.3	17.3	(D)	14	12
34	Fabricated metal products	382.6	1,128.7	296.7	499.0	34.6	25,180.8	629.8	44.5	2	2
341	Metal cans and shipping containers	36.5	99.2	29.4	48.8	(D)	2,077.6	50.4	(D)	1	1
3411	Metal cans	31.4	85.4	25.1	41.2	(D)	1,851.5	44.2	(D)	1	1
3412	Metal barrels, drums, and pails	5.1	13.7	4.3	7.6	(D)	226.2	6.2	(D)	4	3

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
34	Fabricated metal products--Con.										
342	Cutlery, handtools and hardware	31.2	99.6	23.7	40.7	2.1	2,210.4	58.9	(D)	3	2
3421	Cutlery	2.6	9.4	2.0	4.2	.2	153.7	5.2	(D)	5	5
3423	Hand and edge tools, n.e.c.	8.9	25.9	7.2	12.2	.3	514.5	13.7	(D)	6	3
3425	Handsaws and saw blades	1.0	4.3	.6	1.0	(S)	119.2	3.2	-	43	12
3429	Hardware, n.e.c.	18.7	60.0	13.9	23.2	2.1	1,423.1	36.8	(D)	3	3
343	Plumbing and heating, except electric	14.0	39.3	11.6	20.4	(D)	710.1	18.8	(S)	3	4
3431	Metal sanitary ware	5.8	13.3	5.0	7.8	.4	218.8	5.5	(D)	3	5
3432	Plumbing fittings, brass goods	3.7	12.5	2.6	4.4	(D)	322.4	8.1	(D)	9	6
3433	Heating equipment, except electric	4.5	13.5	3.9	8.3	(D)	168.8	5.2	(S)	5	8
344	Fabricated structural metal products	67.2	209.5	50.0	84.3	(D)	5,026.3	125.2	13.8	3	4
3441	Fabricated structural metal	14.6	48.2	10.6	18.1	(D)	1,185.5	30.1	(D)	12	14
3442	Metal doors, sash, and trim	8.0	25.7	5.8	10.1	2.8	633.7	15.6	(D)	6	5
3443	Fabricated plate work, boiler shops	22.3	65.7	17.0	28.1	3.5	1,566.5	37.5	(D)	5	4
3444	Sheet metalwork	12.6	34.7	10.2	16.9	(D)	705.0	17.8	(D)	4	6
3446	Architectural metalwork	2.7	9.9	1.8	3.3	1.2	249.5	6.5	(Z)	10	27
3448	Prefabricated metal buildings	2.8	10.2	1.8	3.3	(D)	286.2	6.8	-	5	3
3449	Miscellaneous metalwork	4.2	15.3	2.8	4.4	.8	399.9	10.9	(S)	6	4
345	Screw machine products, bolts, etc	20.2	67.0	14.7	25.2	(D)	1,591.0	41.8	(D)	5	5
3451	Screw machine products	4.7	18.0	2.8	5.2	(D)	539.3	12.8	(D)	20	10
3452	Bolts, nuts, rivets, and washers	15.5	49.0	11.9	20.1	2.4	1,051.7	29.0	(D)	3	5
346	Metal forgings and stampings	100.4	275.6	81.8	136.1	7.4	5,475.9	139.6	(S)	3	4
3462	Iron and steel forgings	44.1	90.9	40.8	66.0	(D)	969.4	25.0	(D)	4	3
3463	Nonferrous forgings	5.9	13.6	5.2	7.9	(S)	212.7	5.7	(D)	10	8
3465	Automotive stampings	31.6	111.5	21.4	37.4	2.2	2,996.1	74.1	(D)	6	6
3466	Crowns and closures	2.6	7.3	2.0	3.4	.3	164.6	3.9	(D)	1	3
3469	Metal stampings, n.e.c.	16.3	52.3	12.4	21.3	3.0	1,133.0	31.0	(S)	4	5
347	Metal services, n.e.c.	39.3	111.4	31.2	53.2	(D)	2,396.4	58.2	(D)	7	9
3471	Plating and polishing	22.8	70.9	17.4	30.7	(D)	1,596.7	40.2	(D)	9	8
3479	Metal coating, allied services	16.5	40.5	13.8	22.5	1.9	799.7	18.1	(D)	9	24
348	Ordnance and accessories, n.e.c.	20.8	55.2	16.1	24.5	(D)	1,369.9	30.8	(S)	2	3
3482	Small arms ammunition	4.1	9.9	3.4	5.2	.1	205.6	4.7	(D)	1	1
3483	Ammunition, except for small arms, n.e.c.	8.6	22.7	6.9	11.3	.7	478.4	11.4	(D)	2	6
3484	Small arms	2.0	8.7	1.3	2.9	.1	211.1	5.8	(D)	1	3
3489	Ordnance and accessories, n.e.c.	6.1	13.9	4.5	5.0	(D)	474.8	8.9	(D)	5	2
349	Miscellaneous fabricated metal products	53.0	171.9	38.2	65.8	10.3	4,323.2	106.1	4.1	3	3
3493	Steel springs, except wire	4.8	12.4	4.2	7.0	(D)	199.9	5.4	(D)	14	17
3494	Valves and pipe fittings	19.3	64.8	13.5	23.5	1.0	1,689.9	41.3	(D)	2	2
3495	Wire springs	2.4	8.2	1.8	3.0	(S)	180.8	5.2	(S)	9	9
3496	Miscellaneous fabricated wire products	4.6	15.7	3.3	5.9	(D)	376.5	9.8	(D)	12	8
3497	Metal foil and leaf	2.5	9.6	1.4	2.6	(D)	308.1	7.0	-	9	9
3498	Fabricated pipe and fittings	4.1	13.7	2.8	4.9	(D)	375.5	8.8	(D)	10	15
3499	Fabricated metal products, n.e.c.	15.2	47.6	11.2	19.0	7.6	1,192.4	28.6	(D)	6	5
35	Machinery, except electric	339.3	1,098.9	242.1	405.6	51.1	28,489.9	693.2	255.1	1	1
351	Engines and turbines	30.2	95.7	22.3	39.8	.5	2,313.5	55.9	89.1	1	1
3511	Turbines and turbine generator sets	9.5	33.3	7.1	15.0	(D)	711.1	18.3	(D)	1	1
3519	Internal combustion engines, n.e.c.	20.7	62.3	15.2	24.8	(D)	1,602.4	37.6	(D)	2	1
352	Farm and garden machinery	37.5	93.7	30.7	48.1	5.0	1,996.0	45.7	(D)	2	2
3523	Farm machinery and equipment	34.0	83.8	27.9	43.7	4.6	1,771.5	40.1	(D)	2	3
3524	Lawn and garden equipment	3.5	10.0	2.8	4.4	.4	224.5	5.6	(D)	6	3
353	Construction and related machinery	68.1	187.4	50.3	76.6	5.9	5,198.1	110.8	64.5	2	2
3531	Construction machinery	35.5	94.8	27.3	39.3	(D)	2,404.2	55.6	(D)	1	1
3532	Mining machinery	5.0	14.8	3.6	4.7	.4	408.9	10.0	(D)	5	6
3533	Oil field machinery	15.9	39.8	10.8	17.3	1.2	1,502.2	22.6	(S)	4	3
3534	Elevators and moving stairways	1.4	5.2	1.1	2.0	(D)	101.6	3.2	-	9	4
3535	Conveyors and conveying equipment	3.2	11.2	2.3	4.1	(D)	270.7	7.1	(Z)	9	11
3536	Hoists, cranes, and monorails	2.5	7.7	1.9	3.2	.3	180.7	4.5	(D)	5	5
3537	Industrial trucks and tractors	4.6	13.9	3.5	6.1	(D)	330.0	7.9	(Z)	6	4
354	Metalworking machinery	40.9	150.3	28.0	50.3	10.0	3,762.9	100.0	(S)	3	5
3541	Machine tools, metal-cutting types	9.0	31.1	6.6	11.7	1.8	702.2	19.4	(D)	3	4
3542	Machine tools, metal-forming types	3.7	12.6	2.4	4.5	.2	383.4	8.0	(Z)	10	6
3544	Special dies, tools, jigs, and fixtures	13.2	51.6	8.6	15.3	6.1	1,363.3	36.3	(D)	7	12
3545	Machine tool accessories	5.3	24.9	3.2	5.8	1.0	676.7	19.0	2.0	4	5
3546	Power driven handtools	2.5	10.3	1.5	2.9	(D)	295.0	7.4	(D)	5	7
3547	Rolling mill machinery	4.1	10.6	3.5	5.7	(D)	174.1	4.9	-	2	3
3549	Metalworking machinery, n.e.c.	2.8	9.2	2.2	4.2	.7	168.2	4.9	(D)	47	14

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
35	Machinery, except electric--Con.										
355	Special industry machinery	23.9	88.9	16.4	30.1	5.4	2,202.6	58.8	16.0	5	3
3551	Food products machinery	4.0	14.3	2.8	5.1	1.5	354.2	9.2	(D)	5	7
3552	Textile machinery	3.5	13.7	2.3	4.5	(Z)	351.6	9.2	(D)	10	9
3553	Woodworking machinery	1.6	5.6	1.1	1.7	(D)	161.2	3.9	(S)	35	17
3554	Paper industries machinery	2.1	8.7	1.5	3.0	(D)	180.9	5.7	(D)	7	4
3555	Printing trades machinery	3.1	11.5	2.3	4.2	2.1	248.0	7.3	(S)	23	6
3559	Special industry machinery, n.e.c.	9.6	35.1	6.5	11.6	(D)	906.8	23.5	(D)	6	5
356	General industrial machinery	50.5	170.1	35.8	62.8	5.4	4,318.5	107.4	8.6	2	2
3561	Pumps and pumping equipment	8.3	30.5	5.2	9.0	.8	911.5	21.5	(D)	4	3
3562	Ball and roller bearings	15.7	49.2	11.5	20.3	.5	1,234.8	28.9	-	1	2
3563	Air and gas compressors	4.9	15.6	3.7	7.2	.4	363.9	8.5	(D)	5	4
3564	Blowers and fans	3.2	11.9	2.4	4.3	.6	249.0	7.6	(D)	11	10
3565	Industrial patterns	1.1	3.9	.8	1.4	.2	95.2	2.5	(S)	26	19
3566	Speed changers, drives, and gears	4.7	14.5	3.5	5.5	.4	352.2	9.0	(D)	10	9
3567	Industrial furnaces and ovens	1.4	5.5	.9	1.6	(S)	145.5	3.9	(D)	15	12
3568	Power transmission equipment, n.e.c.	6.2	20.1	4.5	7.4	.8	485.7	12.7	(D)	1	2
3569	General industrial machinery, n.e.c.	5.0	19.0	3.3	6.1	1.8	480.7	12.8	(D)	7	6
357	Office and computing machines	20.4	92.2	10.5	18.7	2.9	2,883.0	73.6	(S)	2	1
3573	Electronic computing equipment	13.5	66.4	5.9	10.2	2.2	2,240.1	56.2	(D)	3	2
3574	Calculating and accounting machines	2.1	7.9	1.4	2.4	.2	202.6	5.4	(D)	1	4
3576	Scales, and balances, except laboratory	.6	2.5	.5	.9	.2	53.6	1.6	(Z)	15	6
3579	Office machines, typewriters, n.e.c.	4.1	15.5	2.8	5.2	.3	386.7	10.3	-	1	1
358	Refrigeration and service machinery	39.0	112.1	29.5	48.0	7.7	2,767.6	64.1	(S)	2	2
3581	Automatic merchandising machines	1.1	3.7	.9	1.5	(D)	72.7	2.2	(D)	6	7
3582	Commercial laundry equipment	.5	1.5	.3	.6	(S)	44.2	.9	-	26	22
3585	Refrigeration and heating equipment	33.4	94.2	25.3	40.7	6.0	2,369.2	53.5	(D)	2	1
3586	Measuring and dispensing pumps	1.1	3.4	.8	1.3	(D)	75.8	2.1	-	11	6
3589	Service industry machinery, n.e.c.	2.9	9.3	2.2	3.9	(D)	205.7	5.4	-	6	9
359	Miscellaneous machinery, except electrical	28.8	108.4	18.4	31.4	8.2	3,047.5	77.0	(D)	5	4
3592	Carburetors, pistons, rings, valves	8.2	26.8	5.5	8.2	.4	772.9	18.7	-	2	2
3599	Machinery, except electrical, n.e.c.	20.7	81.5	12.9	23.3	7.8	2,274.6	58.3	(D)	6	6
36	Electric and electronic equipment	241.5	824.5	160.0	263.2	27.8	23,888.7	561.3	50.9	1	1
361	Electric distributing equipment	14.9	51.7	10.2	17.3	(D)	1,381.5	34.4	(D)	1	2
3612	Transformers	8.3	25.2	6.0	9.7	.9	683.7	15.5	-	1	2
3613	Switchgear and switchboard apparatus	6.5	26.5	4.2	7.6	.6	697.8	18.9	(D)	2	3
362	Electrical industrial apparatus	44.5	135.6	30.4	48.8	2.5	4,120.3	86.8	(S)	1	2
3621	Motors and generators	15.9	48.0	11.5	18.5	.8	1,291.6	29.5	(D)	2	2
3622	Industrial controls	5.7	21.9	3.5	5.9	1.0	646.7	16.0	(S)	3	3
3623	Welding apparatus, electric	3.0	9.3	2.2	3.7	(S)	240.8	5.6	(D)	6	4
3624	Carbon and graphite products	17.9	47.4	12.1	18.5	.6	1,703.6	28.9	(D)	1	2
3629	Electrical industrial apparatus, n.e.c.	2.0	9.0	1.2	2.2	.1	237.6	6.7	-	3	14
363	Household appliances	38.1	100.8	29.4	44.2	1.7	2,549.0	56.7	(S)	1	1
3631	Household cooking equipment	7.0	17.0	5.7	8.7	.4	389.0	8.3	(S)	1	2
3632	Household refrigerators and freezers	9.0	20.9	7.0	8.5	(S)	588.5	12.3	(S)	2	1
3633	Household laundry equipment	7.8	19.8	6.1	9.5	.7	490.1	10.3	-	1	1
3634	Electric housewares and fans	6.2	22.2	4.1	7.1	.4	628.3	15.1	-	3	3
3635	Household vacuum cleaners	1.7	5.6	1.2	1.9	.2	158.6	3.7	(S)	2	2
3636	Sewing machines	.9	3.6	.6	1.3	(Z)	78.5	2.3	(S)	2	4
3639	Household appliances, n.e.c.	5.4	11.7	4.6	7.1	(Z)	216.1	4.6	-	3	2
364	Electric lighting and wiring equipment	28.9	94.8	21.0	36.3	(D)	2,308.9	58.5	(S)	3	2
3641	Electric lamps	6.1	19.4	4.5	7.3	(D)	478.9	12.0	(S)	2	1
3643	Current-carrying wiring devices	4.0	18.2	2.4	4.8	.3	459.5	13.4	(S)	3	3
3644	Noncurrent-carrying wiring devices	6.1	21.3	4.4	8.3	.8	488.3	13.0	(S)	8	4
3645	Residential lighting fixtures	3.5	10.6	2.8	5.2	2.1	198.7	5.4	(D)	6	8
3646	Commercial lighting fixtures	3.4	10.0	2.7	4.8	1.1	215.9	5.3	(D)	5	5
3647	Vehicular lighting equipment	4.2	9.4	3.1	3.8	(D)	326.1	5.7	-	8	2
3648	Lighting equipment, n.e.c.	1.5	5.8	1.1	2.1	.4	141.4	3.7	-	13	11
365	Radio and TV receiving equipment	10.7	34.9	7.6	13.4	3.8	919.6	21.6	(S)	4	2
3651	Radio and TV receiving sets	5.6	20.4	3.5	5.8	.8	613.9	14.6	(S)	4	2
3652	Phonograph records	5.1	14.5	4.1	7.5	3.0	305.8	6.9	-	6	5
366	Communication equipment	36.7	150.8	21.5	35.7	4.4	4,461.4	115.1	148.9	2	2
3661	Telephone and telegraph apparatus	14.5	41.8	10.5	15.6	.8	1,188.4	26.2	(D)	1	1
3662	Radio and TV communication equipment	22.2	109.0	11.0	20.1	3.6	3,273.0	88.9	(D)	3	2

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
36	Electric and electronic equipment--Con.										
367	Electronic components and accessories	3.0	175.0	23.3	41.5	6.8	5,771.5	133.5	(S)	2	2
3671	Electron tubes, all types	.6	2.7	.4	.6	.2	77.9	2.1	(S)	1	1
3672	Cathode ray TV picture tubes	4.8	15.0	3.2	5.2	(Z)	459.9	9.8	-	1	1
3673	Electron tubes, transmitting	2.5	10.7	1.3	2.7	.2	345.6	8.0	(D)	5	2
3674	Semiconductors and related devices	14.2	59.7	6.6	11.9	2.1	2,225.2	47.8	-	1	3
3675	Electronic capacitors	3.2	13.2	1.7	3.2	.2	441.4	10.0	(D)	3	2
3676	Electronic resistors	1.5	6.9	.7	1.1	(D)	237.0	5.8	(D)	5	3
3677	Electronic coils and transformers	1.3	4.6	.8	1.4	.4	145.0	3.1	-	14	8
3678	Electronic connectors	2.0	9.8	1.0	2.0	(D)	287.2	7.8	(D)	4	2
3679	Electronic components, n.e.c.	12.9	52.4	7.6	13.3	3.3	1,552.3	39.1	(D)	4	3
369	Miscellaneous electrical equipment and supplies	24.8	81.0	16.7	26.2	(D)	2,376.6	54.8	(D)	3	2
3691	Storage batteries	9.8	33.2	6.5	10.6	.2	953.8	22.6	(S)	7	3
3692	Primary batteries, dry and wet	1.4	5.4	.9	1.7	.1	138.7	3.7	-	1	4
3693	X-ray apparatus and tubes	1.6	5.9	1.1	1.9	(D)	161.0	4.0	(Z)	3	6
3694	Engine electrical equipment	9.5	26.2	6.6	8.9	(D)	853.1	17.3	(D)	2	2
3699	Electrical equipment and supplies, n.e.c.	2.5	10.3	1.6	3.1	.9	269.9	7.2	(D)	8	9
37	Transportation equipment	385.0	1,195.8	283.6	473.7	16.0	29,712.1	722.0	(S)	1	1
371	Motor vehicles and equipment	259.4	767.0	198.6	331.0	7.8	17,814.6	436.0	(S)	1	1
3711	Motor vehicles and car bodies	119.3	330.3	95.2	156.2	.8	7,062.4	174.1	(D)	1	1
3713	Truck and bus bodies	5.5	17.5	4.2	7.6	1.0	354.0	10.0	(D)	6	8
3714	Motor vehicle parts and accessories	131.8	409.8	97.1	163.6	5.3	10,169.6	246.2	(D)	1	1
3715	Truck trailers	2.8	9.3	2.0	3.6	.7	227.3	5.7	-	5	5
372	Aircraft and parts	62.4	218.7	41.2	70.5	(D)	6,236.8	148.2	(S)	1	1
3721	Aircraft	27.7	95.0	18.1	29.8	(D)	2,801.9	65.3	(D)	1	1
3724	Aircraft engines and engine parts	20.8	72.9	14.5	27.2	.7	1,840.6	45.7	(D)	2	3
3728	Aircraft equipment, n.e.c.	14.0	50.7	8.5	13.5	(D)	1,594.3	37.2	(D)	2	3
373	Ship and boat building and repairing	20.9	79.5	13.9	26.7	3.7	2,058.9	52.9	(S)	4	3
3731	Ship building and repairing	16.6	65.9	10.6	20.7	(D)	1,755.7	45.2	(D)	5	4
3732	Boat building and repairing	4.3	13.6	3.3	6.0	(D)	303.2	7.6	(S)	7	9
3743	Railroad equipment	16.2	38.2	13.4	18.9	.5	813.3	19.3	(D)	1	3
3751	Motorcycles, bicycles, and parts	2.5	8.1	1.8	3.2	.6	197.4	4.9	-	4	6
376	Guide missiles, space vehicles, parts	15.6	60.6	8.7	13.0	.4	2,030.3	47.6	(S)	1	1
3761	Guided missiles and space vehicles	9.6	38.7	4.8	6.6	.3	1,402.0	32.1	(S)	1	1
3764	Space propulsion units and parts	4.5	14.1	3.2	5.3	(Z)	383.7	8.8	(D)	1	1
3769	Space vehicle equipment, n.e.c.	1.5	7.8	.7	1.1	.1	244.6	6.7	(D)	1	1
379	Miscellaneous transportation equipment	8.0	23.6	6.0	10.4	(D)	560.8	13.2	(S)	6	12
3792	Travel trailers and campers	2.5	8.1	1.9	3.3	(D)	180.4	4.7	(D)	9	6
3795	Tanks and tank components	3.1	7.8	2.6	4.2	(D)	151.3	3.6	-	1	1
3799	Transportation equipment, n.e.c.	2.3	7.7	1.5	2.9	(D)	229.2	4.9	-	20	31
38	Instruments and related products	76.7	239.3	58.6	97.8	(D)	3,321.6	141.6	(D)	1	2
3811	Engineering and scientific instruments	4.2	19.0	2.5	4.6	1.3	501.0	14.4	(D)	9	6
382	Measuring and controlling devices	13.4	54.8	7.8	14.0	1.7	1,619.8	40.8	(D)	2	2
3822	Environmental controls	2.9	11.1	1.8	2.8	.5	322.8	8.3	-	3	3
3822	Process control instruments	2.3	10.5	1.4	2.8	.4	258.1	7.8	(Z)	2	4
3824	Fluid meters and counting devices	1.6	5.8	1.0	1.8	.1	166.4	4.0	-	3	5
3825	Instruments to measure electricity	4.8	19.0	2.6	4.6	(D)	633.9	14.4	(D)	3	4
3829	Measuring and controlling devices, n.e.c.	1.9	8.4	1.1	2.1	(D)	238.6	6.3	(D)	12	7
3832	Optical instruments and lenses	1.7	6.9	1.3	2.6	1.0	120.5	4.3	-	4	11
384	Medical instruments and supplies	11.2	45.0	7.2	13.1	1.7	1,160.5	31.9	(D)	3	3
3841	Surgical and medical instruments	4.3	19.0	2.5	4.5	(D)	516.6	14.5	(Z)	2	4
3842	Surgical appliances and supplies	5.4	19.9	3.6	6.6	(D)	506.9	13.4	(D)	5	5
3843	Dental equipment and supplies	1.5	6.1	1.1	2.0	(D)	137.0	4.1	(D)	10	9
3851	Ophthalmic goods	4.2	15.5	3.2	6.7	(D)	285.2	8.8	(D)	2	4
3861	Photographic equipment and supplies	39.9	88.5	35.1	54.3	(D)	1,394.7	34.2	(D)	1	2
3873	Watches, clocks, and watchcases	2.1	9.6	1.3	2.6	.3	240.0	7.0	(S)	5	3
39	Miscellaneous manufacturing industries	48.3	175.5	34.2	65.2	(D)	4,114.8	110.3	(S)	4	2
391	Jewelry, silverware and plated ware	4.7	18.4	3.4	7.3	(D)	388.6	11.1	(S)	5	5
3911	Jewelry, precious metal	1.8	8.2	1.1	2.2	.7	207.7	6.0	(D)	9	7
3914	Silverware and plated ware	2.4	7.8	1.9	4.1	(D)	137.0	3.7	(D)	6	9
3915	Jewelers' materials and lapidary work	.6	2.4	.5	1.0	.4	44.0	1.4	-	9	16
3931	Musical instruments	2.1	7.9	1.5	2.8	.5	179.1	5.0	(D)	7	6

See footnotes at end of table.

Table 4. Fuels and Electric Energy Used for Heat and Power, by Industry Group and Industry: 1976, Revised—Con.

(Data are revised because of adjustments to estimating technique; see appendix A, Description of Survey Sample. For explanation of terms, see appendix B)

SIC code	Industry group and industry	Purchased fuels and electric energy		Purchased fuels		Fuels not specified by kind (million dollars)	Electric energy			Standard error of estimate (percent) for columns--[1]	
							Purchased		Generated less sold (million kWh)		
		British thermal units (trillions)	Total cost (million dollars)	British thermal units (trillions)	Total cost (million dollars)		Quantity (million kWh)	Cost (million dollars)			
		A	B	C	D	E	F	G	H	D	G
39	Miscellaneous manufacturing industries--Con.										
394	Toys and sporting goods	14.8	53.1	10.4	18.9	2.6	1,285.7	34.2	(D)	10	3
3942	Dolls	.6	2.4	.4	.8	.5	52.5	1.6	-	14	23
3944	Games, toys, and children's vehicles	6.1	23.9	4.1	7.4	.1	586.6	16.4	(D)	24	4
3949	Sporting and athletic goods, n.e.c.	8.1	26.8	5.9	10.7	2.0	646.6	16.2	(D)	7	5
395	Pens, pencils, office and art supplies	3.6	14.4	2.4	4.6	(D)	367.6	9.8	(D)	7	4
3951	Pens and mechanical pencils	1.0	5.5	.5	.9	(D)	155.8	4.6	-	7	4
3952	Lead pencils and art goods	1.1	3.8	.8	1.5	.7	89.5	2.3	-	3	4
3953	Marking devices	.6	2.2	.4	.8	(D)	58.1	1.3	(D)	22	15
3955	Carbon paper and inked ribbons	.9	3.0	.7	1.4	(D)	64.2	1.6	-	18	11
396	Costume jewelry and notions	4.6	19.4	3.1	6.6	1.3	442.3	12.8	(S)	9	5
3961	Costume jewelry	1.7	7.3	1.2	2.7	.7	143.0	4.5	(D)	9	9
3962	Artificial flowers	.5	1.7	.4	.9	.1	23.5	.8	(Z)	56	24
3963	Buttons	.5	1.9	.3	.6	.3	50.6	1.3	(Z)	14	17
3964	Needles, pins, and fasteners	1.9	8.5	1.1	2.3	.2	225.2	6.1	(D)	7	7
399	Miscellaneous manufactures	18.4	62.3	13.4	25.0	5.9	1,451.5	37.3	(S)	4	4
3991	Brooms and brushes	1.3	6.2	.7	1.4	(D)	182.3	4.8	(D)	10	10
3993	Signs and advertising displays	4.9	17.4	3.4	6.3	1.7	443.8	11.1	(D)	13	11
3995	Burial caskets	1.9	5.8	1.5	2.5	.2	117.4	3.3	(D)	15	13
3996	Hard surface floor coverings	3.3	9.0	2.6	4.9	(D)	188.8	4.1	(S)	2	2
3999	Manufacturing industries, n.e.c.	7.0	24.0	5.3	9.9	3.6	519.1	14.1	(S)	6	6

- Represents zero. (D) Withheld to avoid disclosing operations of individual companies. n.e.c. Not elsewhere classified. (S) Withheld because estimate did not meet publication standards. (X) Not applicable. (Z) Less than 50 thousand dollars or less than half the unit of measure specified.

[1]For further explanation see appendix A, Standard Error of Estimate.

APPENDIX A. Scope and Coverage

BACKGROUND

The manufacturing industries in the United States consume a substantial portion of the coal, coke, fuel oil, natural gas, and electric energy produced in this country. These energy inputs are the primary sources of the heat and power used by the manufacturing sector to produce manufactured products. Data on this important aspect of the domestic economy have been collected and published by the Bureau of the Census for more than six decades. This report presents statistics on quantities and costs of specified fuels used for heat and power, quantity and cost of electric energy purchased, and quantity of electric energy generated less that sold by manufacturing plants in the United States during 1977.

Census reports on quantities of fuels important in manufacturing began with the census of manufactures for 1909. This series has continued to be compiled periodically in subsequent censuses of manufactures for 1914, 1919, 1929, 1937, 1939, 1947, 1954, 1958, 1962 (as part of the 1963 Census of Manufactures), 1967, and 1971 (as part of the 1972 Census of Manufactures), and as part of the annual survey of manufactures (ASM) for 1974, 1975, and 1976.

Data on quantities of electric energy purchased by manufacturers were first collected for 1920 and then for the subsequent census years (listed above). Data on cost of fuels and electric energy were first published for 1929, although some data on costs had been collected in prior censuses. Data on quantity of electric energy generated by manufacturing plants were first compiled for 1939. The data for that year also provided, for the first time, statistics on fuels purchased for heat and power separate from those purchased as materials.

For the intercensal years prior to 1974, which were covered by the annual survey of manufactures, data on the total cost of fuels purchased, the quantity and cost of purchased electric energy, and the quantity of electricity generated appear in the ASM volumes covering 1950-1953, 1955-1957, 1959-1962, 1964-1966, and 1968-1971. The data for 1972 and 1973 appear in the individual ASM report on Fuels and Electric Energy for 1974, M74(AS) 4.2.

The 1974 report included, for the first time as part of the ASM, detailed data on the total cost of fuels and total quantity consumed by fuel type: Distillate and residual fuel oil; bituminous coal, lignite, and anthracite; coke and breeze; and natural gas.

Except for the 1950-1953 statistics on electricity generated, which were prepared from Federal Power Commission data, all of the intercensal statistics are estimates. A description of the sample, sampling techniques, coverage, etc., for these years is included in the ASM publications.

1977 REPORTING STRUCTURE

For 1977, data on cost of fuels and purchased electric energy were collected on the 1977 Census of Manufactures report forms. Data on individual fuels as well as data on quantity of purchased electric energy and generated and sold electric energy were collected on 1977 Annual Survey of Manufactures form MA-100. The MA-100 was mailed with the census report form to each of the manufacturing establishments included in the survey sample. Establishments not included in the sample received only census report forms. Thus the statistics published on the cost of fuels and electric energy are census totals whereas the statistics on the individual fuels and quantities of electric energy are sample estimates.

Fuels Consumed

Form MA-100 requested information on detailed fuels consumed: Quantity and cost of coal, coke, distillate fuel oil, residual fuel oil, and natural gas. It also requested cost only for other types of fuels consumed.

The cost of fuels refers to direct charges actually paid or payable for fuels consumed during the year, including freight charges and other direct charges incurred by the establishment in acquiring these fuels. Manufacturers included the cost of fuels consumed regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

Electric Energy

Data also were obtained on form MA-100 on the quantity and cost of electric energy purchased from other companies or transferred from other establishments of the same company. In addition, information was collected on the amount of electric energy generated by the establishment, and the quantity of electric energy sold or transferred to other plants of the same company. In reporting figures on energy sold some manufacturing establishments, acting as central distribution stations for several company plants in the same general area, included quantities of purchased electricity which were subsequently transferred to other company plants.

The cost of electric energy represents the amount actually paid during the year for electric energy purchased from other companies or received from other establishments of the same company. It does not include the value of electricity generated and used at the establishment.

DESCRIPTION OF SURVEY SAMPLE

Sample estimates in this report are compiled from a survey of a probability sample of about 70,000 manufacturing establishments selected from a total of about 300,000 establishments. The sample was selected from the 1972 Census of Manufactures list supplemented by Social Security Administration (SSA) lists of new manufacturers that opened after 1972. As in earlier surveys, companies rather than establishments were defined as the sampling units. The selected companies were required to report for all of their plants so that new establishments of existing companies also were represented.

All companies that had any manufacturing establishments with 250 employees or more in the 1972 census were included in the survey panel. These large companies, which were included with certainty, collectively account for more than two-thirds of total manufacturing employment. Smaller companies were sampled with probabilities ranging from 1.000 down to 0.005, in accordance with mathematical theory for optimum allocation of a sample.

The certainty cutoff level of 250 employees is a change from the previous sample design (1965-1969) in which all companies with any manufacturing establishments with more than 100 employees were included (except for the apparel and printing and publishing industries where the certainty cutoff level was 250 employees). The higher certainty cutoff level for the new panel permits a more effective representation of the smaller manufacturing companies.

The probabilities of selection assigned to the smaller companies were proportional to measures of size determined for each company. For companies included in the 1972 Census of Manufactures, the measures of size depended directly upon each company's 1972 product class values and the historic variability of the year-to-year shipments of each product class. Roughly equivalent measures of size were assigned to the postcensus companies based on their industry codes and anticipated employment. (More specific information was not available for them in the SSA lists used for sampling.)

In order to improve reliability of general statistics for geographic areas, two features were incorporated into the sample design. First, some weight was given to the total value of shipments of each establishment relative to the total value of shipments for the State in which the establishment was located. Second, product class values for establishments in States where the total level of manufacturing was relatively low or rapidly expanding (but for which the reliability of estimates was not expected to be much improved by the first sample design feature) were multiplied by factors ranging from 1.15 to 1.25 before measures of size were developed.

This method of assigning measures of size was used to maximize the precision (minimize the variance) of the estimates of the year-to-year change in the value of product class shipments. It also gave weight to differences in employment, value added, and other general statistics, for these are highly correlated with total value of shipments, and the assigned size measures varied directly with that total for each company.

The cost of collecting and processing data for a company is roughly proportionate to the number of its establishment reports. Therefore, each company's initial size measure was divided by the square root of its number of establishments. Sample selection probabilities then were obtained by multiplying each company's final measure of size by an overall sampling fraction calculated to yield the total expected sample size.

The sample selection procedure gave each company in the sampling frame an independent chance of selection. This method of selection differs from the method of systematic selection used in annual surveys before 1959. With systematic selection only certain combinations of companies can fall into the sample, depending on the order in which they are arrayed at the time the sample is drawn. Independent selection permits the rotation of companies into and out of a given sample panel, without introducing a bias into the survey estimates.

REVISED METHOD OF ESTIMATION

The estimates of fuel and electric energy data for 1976 that appear in this report may differ from those found in the 1976 publication. The reason for this is a change in the basic estimation procedure. The original 1976 estimates were produced using a fixed base difference estimator, as follows:

$$Y''_{76} = Y'_{76} + (X_{72} - X'_{72})$$

where Y'_{76} is a linear estimate obtained by multiplying each sample establishment's data by its corresponding sampling weight. The term in the parenthesis is a fixed base difference. It represents the difference in the 1972 census or base year between the census universe total, X_{72}, and the linear estimate from the sample X'_{72}.

This difference estimate was used to produce more reliable estimates than could have been produced by the simple linear estimate alone. One very important assumption involved in the decision to use the difference estimate was that the universe totals, and hence the absolute difference between a given linear estimate and the corresponding universe total, would remain relatively constant for four to five years. However, a high rate of inflationary growth has been experienced by the data items in this report. This suggested the need for revision of 1976 data.

Revised data for 1976 were generated using a ratio adjusted difference estimation procedure that allows for adjustment of the difference estimate for estimates of universe growth.

The revised estimates for 1976 were obtained as follows:

$$Y''_{76} = Y'_{76} + \frac{Y'_{76}}{Y'_{77}}(X_{77} - X'_{77})$$

where Y'_{76} is the linear estimate as defined above. The term in parenthesis $(X_{77} - X'_{77})$ is the difference between the linear estimate from the sample in 1977 (X'_{77}) and the universe census estimate in 1977 (X_{77}).

The ratio Y'_{76}/Y'_{77} is computed at the State total level and is a measure of the reciprocal of the estimated growth in the universe between 1976 and 1977. If the universe has in fact not changed between 1976 and 1977 we would expect this ratio to be equal to 1.0 and the 1977 fixed base difference would be appropriate for 1976 data. If, however, the universe has changed, whether by inflation or actual growth, the estimated difference based on 1977 data would probably be an overstatement of the 1976 difference. This ratio adjustment, Y'_{76}/Y'_{77}, is intended to adjust the 1977 difference to reflect the year-to-year universe change. The use of this estimation procedure involves assumption that the percent of the universe covered by the weighted sample is relatively constant between 1976 and 1977, as opposed to the fixed base difference estimate assumption that the absolute difference between the weighted sample and the universe was relatively constant for the two years.

QUALIFICATIONS OF THE DATA

The estimates developed from the Annual Survey of Manufactures (ASM) sample may differ somewhat from the results of a survey covering all companies in the sampled lists but otherwise conducted under essentially the same conditions as the actual sample survey. The sampling errors—differences between estimates obtained and the results theoretically obtainable from a comparable complete coverage survey—are unknown. Guides to potential size of the sampling errors, however, are provided by standard errors of the estimates.

The particular sample selected for the ASM is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretical, comparable complete coverage values.

Estimates of the standard errors have been computed from the sample data for selected statistics in this report. They are presented in the form of relative standard errors, the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals—ranges that would include the comparable complete coverage value for specified percentages of all the possible samples. The complete coverage value would be included in the range:

1. From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
2. From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
3. From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable complete survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence with which the estimates from a particular sample would differ from complete coverage results by as much as one, two, or three standard errors.

For example, suppose an estimated total is shown as 50,000 with an associated relative standard error of 2 percent, i.e., a standard error of 1,000 (2 percent of 50,000). Then there is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete coverage total.

In addition to the sampling errors, the estimates are subject to various operational errors: Errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors would also occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected in the course of the Bureau's review of the data for reasonableness and consistency. When they were detected too late to correct, the data were suppressed or specifically qualified in the tables. The small operational errors usually remain. To some extent the aggregated totals compensate for them.

As derived, the estimated standard errors include part of the effect of the operational errors. The total error, which depends upon the joint effect of the sampling and operation errors, is usually of the order of size indicated by the standard error or only moderately higher. For some estimates, however, the total error may considerably exceed the standard errors shown.

The concept of complete coverage under the conditions prevailing for the annual surveys of manufactures is not identical to the complete coverage of the censuses of manufactures as the censuses have been conducted. Nearly all types of operational errors that affect the surveys also occur in the censuses. The surveys and the censuses, however, are conducted under quite different conditions, and operational errors can be controlled more tightly in the surveys than in the censuses. As a result, errors in many of the census figures are of the same order of size as the total errors of the corresponding annual survey estimates. The differences between the census and survey operating conditions also disturb, to some degree, the comparability of the ASM and census data.

APPENDIX B. Explanation of Terms

NATURAL GAS

Natural gas excludes manufactured gas, mixed gas, blast furnace gas, still gas, coke-oven gas, etc.

BITUMINOUS COAL, LIGNITE, AND ANTHRACITE

Most coal of metallurgical grade (coking coal) is not included in this survey because it is considered a material for consumption rather than a fuel. Consequently, the average cost of coal purchased by manufacturing establishments is lower than it would be if coking coal were classified as a fuel.

Residual fuel oil includes grades 5 and 6 fuel oils, heavy diesel type fuel oil, bunker "C" fuel oils, heavy gas-enrichment oil, etc. Quantities are published in barrels (42 gallons).

Distillate fuel oil includes grades 1, 2, and 4 fuel oils, light diesel-type fuel oil, light gas-enrichment oil, etc. Quantities are published in barrels (42 gallons).

COKE AND BREEZE

The quantity of coke covered by this survey represents only a small fraction of coke consumed in manufacturing. Most metallurgical coke is produced and consumed at the same establishment and is therefore excluded from this report. Breeeze (coke fines) are included here even though their unit cost is considerably lower than beehive or coke-oven coke.

OTHER FUELS

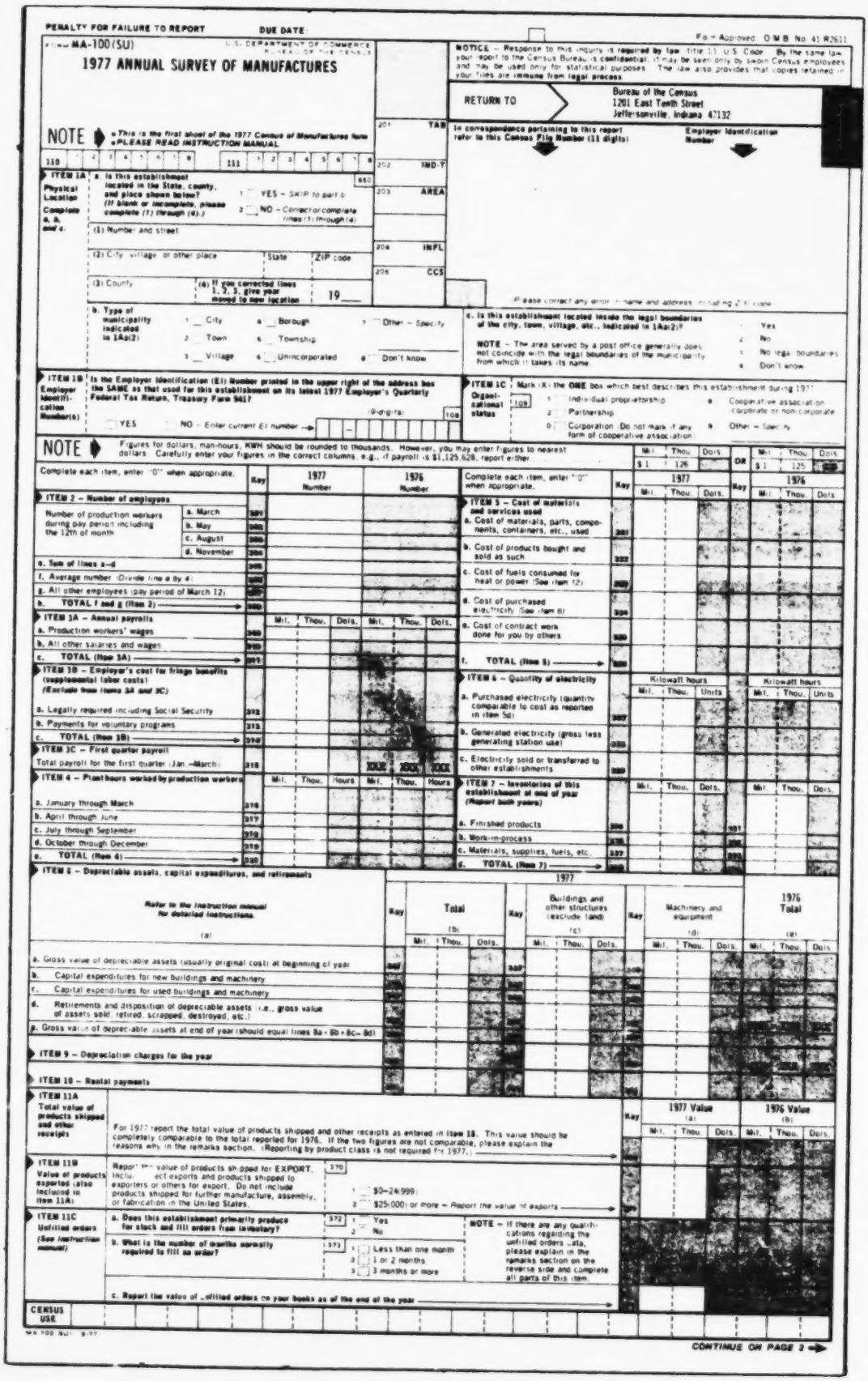
Other fuels consists mainly of purchased steam liquified petroleum gases, and gasoline, it also includes mixed gases, coke-oven gases, still gases, blast furnace gases, wood, and small amounts of other miscellaneous fuels.

FUELS NOT SPECIFIED BY KIND

Some small establishments reported total cost of fuels but failed to report the cost and quantity of specific fuels used. Estimates of their total cost of fuels are included in the tables under Fuels not specified by kind. To the extent that information on detailed fuels consumed was not given, data shown for individual fuels in this report tend to be understated.

Further limitations apply to the estimates of cost of fuels, not specified by kind. They are residual balancing figures derived by subtracting the sum of the linear estimates for the specified fuels from the total cost of fuels, which is a census total. They include the cost not allocated by kind because of nonresponse, additional adjustments for unresolved imbalances between the sum of the detail and the total in individual reports, and the statistical deviation resulting from the use of two methods of compilation.

APPENDIX C. Report Form



PENALTY FOR FAILURE TO REPORT — DUE DATE

Form MA-100(SU) — U.S. DEPARTMENT OF COMMERCE — BUREAU OF THE CENSUS

1977 ANNUAL SURVEY OF MANUFACTURES

Form Approved: O.M.B. No. 41-R2611

NOTICE – Response to this inquiry is required by law (title 13, U.S. Code). By the same law your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

RETURN TO: Bureau of the Census, 1201 East Tenth Street, Jeffersonville, Indiana 47132

NOTE ◆ This is the first sheet of the 1977 Census of Manufactures form ◆ PLEASE READ INSTRUCTION MANUAL

110 | 111 | YAB 201 | IND-T 202 | AREA 203 | INFL 204 | CCS 205

In correspondence pertaining to this report refer to this Census File Number (11 digits) — Employer Identification Number

ITEM 1A Physical Location — Complete a, b, and c.

a. Is this establishment located in the State, county, and place shown below? (If blank or incomplete, please complete (1) through (4).) 650 — 1 YES – SKIP to part b; 2 NO – Correct or complete lines (1) through (4)

(1) Number and street

(2) City, village, or other place | State | ZIP code

(3) County | (4) If you corrected lines 1, 2, 3, give year moved to new location | 19__

Please correct any error in name and address, including ZIP code

b. Type of municipality indicated in 1Aa(2): 1 City; 2 Town; 3 Village; 4 Borough; 5 Township; 6 Unincorporated; 7 Other – Specify; 8 Don't know

c. Is this establishment located inside the legal boundaries of the city, town, village, etc., indicated in 1Aa(2)? 1 Yes; 2 No; 3 No legal boundaries; 8 Don't know

NOTE – The area served by a post office generally does not coincide with the legal boundaries of the municipality from which it takes its name.

ITEM 1B Employer Identification Number(s) — Is the Employer Identification (EI) Number printed in the upper right of the address box the SAME as that used for this establishment on its latest 1977 Employer's Quarterly Federal Tax Return, Treasury Form 941? YES; NO – Enter current EI number → (9-digits) 108

ITEM 1C Organizational status — Mark (X) the ONE box which best describes this establishment during 1977. 109: 1 Individual proprietorship; 2 Partnership; 3 Corporation. Do not mark if any form of cooperative association; 4 Cooperative association (corporate or non-corporate); 5 Other – Specify

NOTE ◆ Figures for dollars, man-hours, KWH should be rounded to thousands. However, you may enter figures to nearest dollars. Carefully enter your figures in the correct columns, e.g., if payroll is $1,125,628, report either Mil. $1 | Thou. 126 | Dols. OR Mil. $1 | Thou. 125 | Dols.

Complete each item, enter "0" when appropriate.

	Key	1977 Number	1976 Number
ITEM 2 – Number of employees			
Number of production workers during pay period including the 12th of month: a. March	301		
b. May	302		
c. August	303		
d. November	304		
e. Sum of lines a–d	305		
f. Average number (Divide line e by 4)	306		
g. All other employees (pay period of March 12)	307		
h. TOTAL f and g (Item 2) →	308		

	Key	1977 Mil.	Thou.	Dols.	1976 Mil.	Thou.	Dols.
ITEM 3A – Annual payrolls							
a. Production workers' wages	309						
b. All other salaries and wages	310						
c. TOTAL (Item 3A) →	311						
ITEM 3B – Employer's cost for fringe benefits (supplemental labor costs) (Exclude from items 3A and 3C)							
a. Legally required including Social Security	312						
b. Payments for voluntary programs	313						
c. TOTAL (Item 3B) →	314						
ITEM 3C – First quarter payroll							
Total payroll for the first quarter (Jan.–March)	315			XXX		XXX	XXX

	Key	1977 Mil.	Thou.	Hours	1976 Mil.	Thou.	Hours
ITEM 4 – Plant hours worked by production workers							
a. January through March	316						
b. April through June	317						
c. July through September	318						
d. October through December	319						
e. TOTAL (Item 4) →	320						

	Key	1977 Mil.	Thou.	Kilowatt hours Units	1976 Mil.	Thou.	Kilowatt hours Units
ITEM 6 – Quantity of electricity							
a. Purchased electricity (quantity comparable to cost as reported in Item 5d)	327						
b. Generated electricity (gross less generating station use)	328						
c. Electricity sold or transferred to other establishments	329						

	Key	1977 Mil.	Thou.	Dols.	1976 Mil.	Thou.	Dols.
ITEM 7 – Inventories of this establishment at end of year (Report both years)							
a. Finished products	330				331		
b. Work-in-process	332				333		
c. Materials, supplies, fuels, etc.	334				335		
d. TOTAL (Item 7) →	336						

ITEM 5 – Cost of materials and services used

	Key	1977 Mil.	Thou.	Dols.	1976 Mil.	Thou.	Dols.
a. Cost of materials, parts, components, containers, etc., used	321						
b. Cost of products bought and sold as such	322						
c. Cost of fuels consumed for heat or power (See item 12)	323						
d. Cost of purchased electricity (See item 6)	324						
e. Cost of contract work done for you by others	325						
f. TOTAL (Item 5) →	326						

ITEM 8 – Depreciable assets, capital expenditures, and retirements

Refer to the instruction manual for detailed instructions.

(a)	Key	1977 Total (b) Mil.	Thou.	Dols.	Key	Buildings and other structures (exclude land) (c) Mil.	Thou.	Dols.	Key	Machinery and equipment (d) Mil.	Thou.	Dols.	1976 Total (e) Mil.	Thou.	Dols.
a. Gross value of depreciable assets (usually original cost) at beginning of year	337				337				338						
b. Capital expenditures for new buildings and machinery	339				339				340						
c. Capital expenditures for used buildings and machinery	341				341				342						
d. Retirements and disposition of depreciable assets (i.e., gross value of assets sold, retired, scrapped, destroyed, etc.)	343				343				344						
e. Gross value of depreciable assets at end of year (should equal lines 8a + 8b + 8c – 8d)	345				345				346						
ITEM 9 – Depreciation charges for the year	347				347				348						
ITEM 10 – Rental payments	349				349				350						

ITEM 11A Total value of products shipped and other receipts — For 1977 report the total value of products shipped and other receipts as entered in Item 18. This value should be completely comparable to the total reported for 1976. If the two figures are not comparable, please explain the reasons why in the remarks section. (Reporting by product class is not required for 1977.) →

	Key	1977 Value (a) Mil.	Thou.	Dols.	1976 Value (b) Mil.	Thou.	Dols.
	351						

ITEM 11B Value of products exported (also included in Item 11A) — Report the value of products shipped for EXPORT. Include direct exports and products shipped to exporters or others for export. Do not include products shipped for further manufacture, assembly, or fabrication in the United States. 370: 1 $0–24,999; 2 $25,000 or more – Report the value of exports →

ITEM 11C Unfilled orders (See instruction manual)

a. Does this establishment primarily produce for stock and fill orders from inventory? 372: 1 Yes; 2 No

b. What is the number of months normally required to fill an order? 373: 1 Less than one month; 2 1 or 2 months; 3 3 months or more

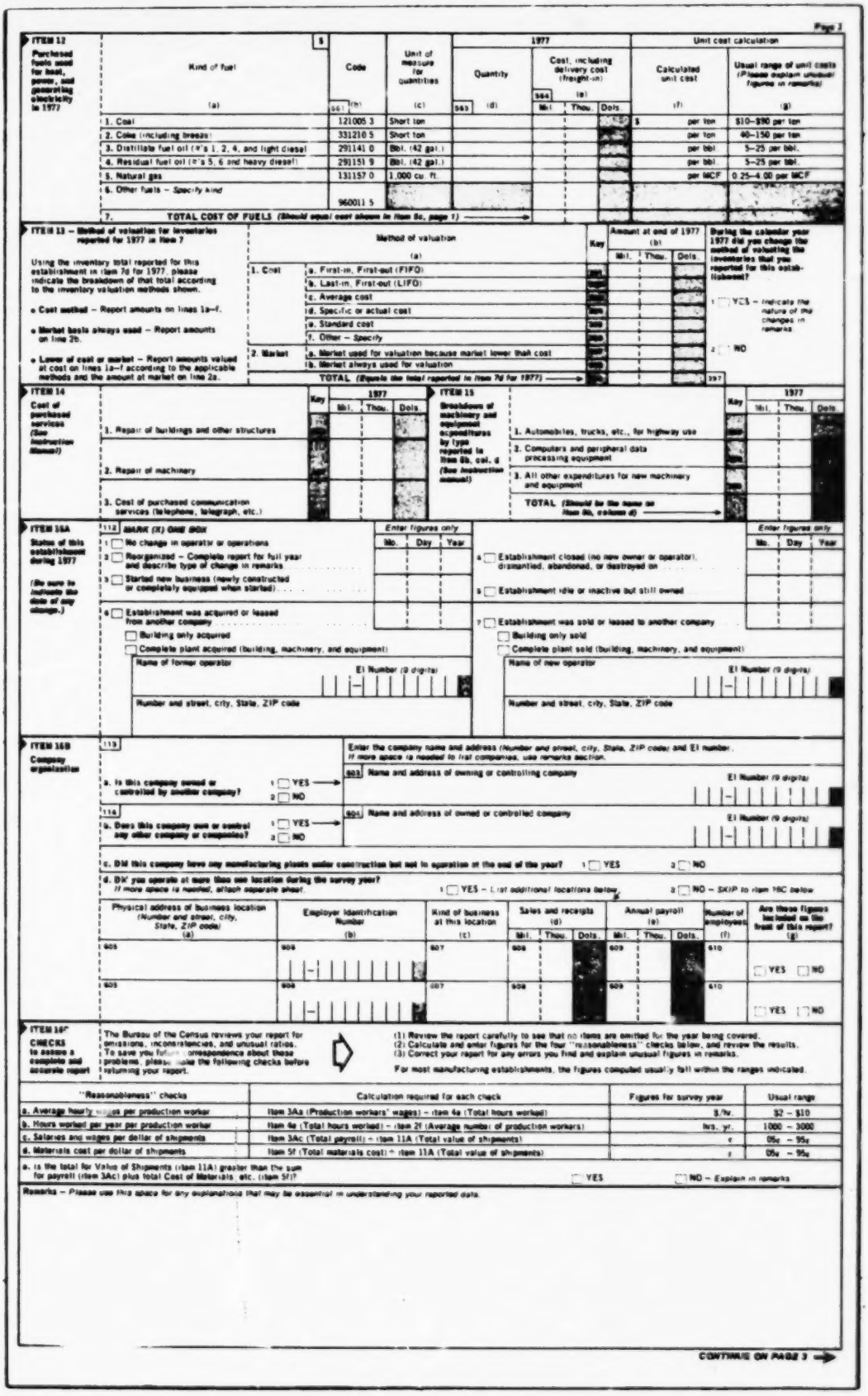
NOTE – If there are any qualifications regarding the unfilled orders data, please explain in the remarks section on the reverse side and complete all parts of this item.

c. Report the value of unfilled orders on your books as of the end of the year →

CENSUS USE

MA-100 (SU) 8-77

CONTINUE ON PAGE 2 →



ITEM 12 — Purchased fuels used for heat, power, and generating electricity in 1977

Kind of fuel (a)	Code (b)	Unit of measure for quantities (c)	1977 Quantity (d)	1977 Cost, including delivery cost (freight-in) (e) Mil.	Thou.	Dols.	Unit cost calculation: Calculated unit cost (f)	Usual range of unit costs (Please explain unusual figures in remarks) (g)
1. Coal	121005 3	Short ton					$ per ton	$10–$90 per ton
2. Coke (including breeze)	331210 5	Short ton					per ton	40–150 per ton
3. Distillate fuel oil (#'s 1, 2, 4, and light diesel	291141 0	Bbl. (42 gal.)					per bbl.	5–25 per bbl.
4. Residual fuel oil (#'s 5, 6 and heavy diesel)	291151 9	Bbl. (42 gal.)					per bbl.	5–25 per bbl.
5. Natural gas	131157 0	1,000 cu. ft.					per MCF	0.25–4.00 per MCF
6. Other fuels — Specify kind	960011 5							
7. TOTAL COST OF FUELS (Should equal cost shown in Item 8c, page 1) →								

ITEM 13 — Method of valuation for inventories reported for 1977 in Item 7

Using the inventory total reported for this establishment in Item 7d for 1977, please indicate the breakdown of that total according to the inventory valuation methods shown.

- Cost method — Report amounts on lines 1a–f.
- Market basis always used — Report amounts on line 2b.
- Lower of cost or market — Report amounts valued at cost on lines 1a–f according to the applicable methods and the amount at market on line 2a.

Method of valuation (a)		Key	Amount at end of 1977 (b) Mil.	Thou.	Dols.
1. Cost	a. First-in, First-out (FIFO)				
	b. Last-in, First-out (LIFO)				
	c. Average cost				
	d. Specific or actual cost				
	e. Standard cost				
	f. Other — Specify				
2. Market	a. Market used for valuation because market lower than cost				
	b. Market always used for valuation				
TOTAL (Equals the total reported in Item 7d for 1977) →					

During the calendar year 1977 did you change the method of valuating the inventories that you reported for this establishment?

1 ☐ YES — Indicate the nature of the changes in remarks

2 ☐ NO

ITEM 14 — Cost of purchased services (See instruction manual)

	Key	1977 Mil.	Thou.	Dols.
1. Repair of buildings and other structures				
2. Repair of machinery				
3. Cost of purchased communication services (telephone, telegraph, etc.)				

ITEM 15 — Breakdown of machinery and equipment expenditures by type reported in Item 8b, col. d (See instruction manual)

	Key	1977 Mil.	Thou.	Dols.
1. Automobiles, trucks, etc., for highway use				
2. Computers and peripheral data processing equipment				
3. All other expenditures for new machinery and equipment				
TOTAL (Should be the same as Item 8b, column d) →				

ITEM 16A — Status of this establishment during 1977 (Be sure to indicate the date of any change.)

112 MARK (X) ONE BOX

	Enter figures only: Mo.	Day	Year
1 ☐ No change in operator or operations			
2 ☐ Reorganized — Complete report for full year and describe type of change in remarks			
3 ☐ Started new business (newly constructed or completely equipped when started)			
4 ☐ Establishment was acquired or leased from another company			
☐ Building only acquired			
☐ Complete plant acquired (building, machinery, and equipment)			
Name of former operator — EI Number (9 digits)			
Number and street, city, State, ZIP code			
5 ☐ Establishment idle or inactive but still owned			
6 ☐ Establishment closed (no new owner or operator), dismantled, abandoned, or destroyed on			
7 ☐ Establishment was sold or leased to another company			
☐ Building only sold			
☐ Complete plant sold (building, machinery, and equipment)			
Name of new operator — EI Number (9 digits)			
Number and street, city, State, ZIP code			

ITEM 16B — Company organization

119

a. Is this company owned or controlled by another company? 1 ☐ YES → 2 ☐ NO

Enter the company name and address (Number and street, city, State, ZIP code) and EI number. If more space is needed to list companies, use remarks section.

903 Name and address of owning or controlling company — EI Number (9 digits)

114

b. Does this company own or control any other company or companies? 1 ☐ YES → 2 ☐ NO

904 Name and address of owned or controlled company — EI Number (9 digits)

c. Did this company have any manufacturing plants under construction but not in operation at the end of the year? 1 ☐ YES 2 ☐ NO

d. Did you operate at more than one location during the survey year? If more space is needed, attach separate sheet. 1 ☐ YES — List additional locations below. 2 ☐ NO — SKIP to Item 16C below

Physical address of business location (Number and street, city, State, ZIP code) (a)	Employer Identification Number (b)	Kind of business at this location (c)	Sales and receipts (d) Mil.	Thou.	Dols.	Annual payroll (e) Mil.	Thou.	Dols.	Number of employees (f)	Are these figures included on the front of this report? (g)
905	906	907	908			909			910	☐ YES ☐ NO
905	906	907	908			909			910	☐ YES ☐ NO

ITEM 16C — CHECKS to assure a complete and accurate report

The Bureau of the Census reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report.

(1) Review the report carefully to see that no items are omitted for the year being covered.
(2) Calculate and enter figures for the four "reasonableness" checks below, and review the results.
(3) Correct your report for any errors you find and explain unusual figures in remarks.

For most manufacturing establishments, the figures computed usually fall within the ranges indicated.

"Reasonableness" checks	Calculation required for each check	Figures for survey year	Usual range
a. Average hourly wages per production worker	Item 3Aa (Production workers' wages) ÷ Item 4a (Total hours worked)	$/hr.	$2 – $10
b. Hours worked per year per production worker	Item 4a (Total hours worked) ÷ Item 2f (Average number of production workers)	hrs. yr.	1000 – 3000
c. Salaries and wages per dollar of shipments	Item 3Ac (Total payroll) ÷ Item 11A (Total value of shipments)	¢	05¢ – 95¢
d. Materials cost per dollar of shipments	Item 5f (Total materials cost) ÷ Item 11A (Total value of shipments)	¢	05¢ – 95¢

e. Is the total for Value of Shipments (Item 11A) greater than the sum for payroll (Item 3Ac) plus total Cost of Materials, etc. (Item 5f)? ☐ YES ☐ NO — Explain in remarks

Remarks — Please use this space for any explanations that may be essential in understanding your reported data.

CONTINUE ON PAGE 3 →

Instructions for Completing the Annual Survey of Manufactures Report 1977

▶**Item 5. Cost of Materials Consumed — Multi-Establishment Companies:** If materials, parts, and supplies are received from other establishments of your company, costs should be checked against the values reported for the plant producing and transferring the goods (see section D, page 3 above). The value should be "economic value," i.e., include in addition to the producing plant's direct cost of production a reasonable proportion of all other costs (company overhead) and profits. Freight and other direct handling charges should be added.

* * * * *

▶**Item 5c. Cost of Fuels Consumed** — Report the total amount actually paid or payable during the year for all fuels consumed for heat, power, or the **generation** of **electricity**. Do not include the estimated cost of fuels, such as sawdust or blast furnace gas, produced as a by-product of your manufacturing activities. Include anthracite and bituminous coal, coke, natural and manufactured gas, fuel oil, liquefied petroleum gas, gasoline, and all other fuels including purchased steam. For selected industries, such as Carbon Black, Blast Furnaces and Coke Ovens some of the above fuel types may be used as raw materials as well as being consumed as fuels. In such cases, the cost of these fuel types used as raw materials should be reported in item 5a. and in item 17B. The cost of these fuel types used as fuels should be reported in item 5c.

NOTE: Form MA-100 includes an inquiry on detailed fuels consumed in item 12. Please make certain the total cost of fuels reported in item 12 agrees with the total reported in item 5c.

▶**Item 5d. Cost of Purchased Electricity** — Report the total amount actually paid or payable for electric energy purchased during the year from other companies, or received from other establishments of your company. Exclude the value of electricity generated and used at this establishment.

▶**Item 6. Quantity of Electricity** — All quantities for electricity should be reported in **thousands** of kilowatt hours.

▶**Item 6a. Purchased Electricity** — Report (in thousands of kilowatt hours) the quantity of electricity for which cost is reported in item 5d.

▶**Item 6b. Generated Electricity** — Enter the total quantity of electric energy generated in this plant (gross less generating station use) during the year although part of such energy may have been sold or transferred.

When totals are reported on this line, data relating to the activity of the power stations would also be included in other sections of this report. For example, the number of employees assigned to the power station, their wages and man-hours should be included in the figures reported in items 2, 3, and 4; and the cost of fuels used to generate electricity, in item 5c.

▶**Item 6c. Electricity Sold or Transferred** — Enter the quantity of electric energy, which was also included in item 6a or 6b, but which was sold to other companies or transferred to other manufacturing or nonmanufacturing establishments of your company.

* * * * *

▶**Item 12. Purchased Fuels Used During Survey Year** — Report detailed quantity and cost data for specific purchased fuels used by the establishment during the survey year for heat, power, and generating electricity. Do not include (1) fuels produced and consumed in the establishment (e.g., blast furnace gas, coke oven gas, still gas, etc.); and (2) fuels purchased as raw materials or converted to other fuel forms (e.g., coal used to produce coke; natural gas or fuel oil used to produce carbon black; crude petroleum used to produce fuels).

Cost is delivered cost — i.e., the amount paid or payable after discounts and including freight and other direct charges incurred by the establishment in acquiring the materials.

Fuels transferred or received from other establishments of your company should be valued at their "economic value."

Report quantities (column d) in the specified unit of measure and cost (column e) in thousands of dollars.

Line 1. COAL — Report quantity (short tons) and cost of purchased coal (anthracite, bituminous, lignite) on line 1. If quantities are billed in pounds, divide quantity by 2,000 to obtain tons.

Line 2. COKE — Report quantity (short tons) and cost of purchased coke, coke screenings, and breeze on line 2. If quantities are billed in pounds, divide quantity by 2,000 to obtain tons.

Lines 3 and 4. FUEL OIL — Report quantity (barrels of 42 gallons) and cost of purchased distillate oil (line 3) and residual oil (line 4). If quantities are billed in gallons, divide quantity by 42 to obtain barrels.

Distillate includes grades 1, 2, and 4 fuel oils; light diesel-type fuel oil, light gas-enrichment oil, etc.

Residual includes grades 5 and 6 fuel oils; heavy diesel-type fuel oil; bunker "C" fuel oils; heavy gas-enrichment oil; etc.

Line 5. NATURAL GAS – Report quantity (1,000 cubic feet) and cost of purchased natural gas on line 5. If quantities are billed in therms, divide quantity by 10 to obtain cubic feet. Estimate the value of natural gas received or transferred from other establishments of your company. Report manufactured gas (includes mixed, blast furnace gas, coke oven gas, etc.) on Line 6, Other Fuels.

Line 6. OTHER FUELS – Report cost of fuels (not specified above) such as gasoline, LPG (include propane and butane), purchased steam, wood, blast-furnace gas, coke-oven gas. Please specify type of fuel.

Line 7. TOTAL COST OF FUELS – On line 7 enter the sum of lines 1 through 6. This total cost should equal the figure reported in item 5c on page 1.

UNIT COST CALCULATION – In column (f), for each fuel reported on lines 1 through 5, calculate the cost per unit by dividing the cost (column (e)) by the quantity (column (d)). Enter the derived unit cost in column (f) for each kind of fuel (e.g., the calculated unit cost of coal might be "$10.50 per ton" and for distillate fuel oil, "$9.35 per barrel"). Then for each fuel compare the calculated unit cost with the usual range of average unit costs shown for that fuel in column (g). If the calculated unit cost for a specified fuel does not fall within the range shown in column (g), please re-examine and revise, where appropriate, your reported quantity and/or cost figures for that fuel, or explain your reported figures under "Remarks."

* * * * *

*U.S. GOVERNMENT PRINTING OFFICE: 1980-0-311-073/199

PUBLICATION PROGRAM

1977 CENSUS OF MANUFACTURES

Publications of the 1977 Census of Manufactures, containing final data on manufacturing establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Customer Services Branch, Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

Preliminary area data from the 1977 census were issued in separate reports for each State, and industry data in 444 separate reports covering 452 industries or combinations of industries. Final detailed statistics are issued in separate paperbound reports. These reports subsequently are assembled and reissued in clothbound volumes.

Final Reports

Industry series—82 reports (MC77-I-20A to -39D)

Each of the 82 reports provides information for a group of related industries (e.g., "dairy products" includes industries for butter, cheese, milk, etc.). Final figures for the United States are shown for each of the 452 manufacturing industries on quantity and value of products shipped and materials consumed, cost of fuels and electric energy, capital expenditures, assets, rents, inventories, employment, payrolls, payroll supplements, hours worked, value added by manufacturing, number of establishments, and number of companies. Comparative statistics for earlier years are provided where available.

For each industry, data on value of shipments, value added by manufacturing, capital expenditures, employment, and payrolls are shown by employment size class of establishment and degree of primary product specialization. Statistics are given on production of specific products and consumption of energy and various materials by industry.

Geographic Area series—51 reports (MC77-A-1 to -51)

A separate report for each State and the District of Columbia presents data for industry groups and industries on value of shipments, value added by manufacturing, employment, payrolls, hours worked, new capital expenditures, and number of manufacturing establishments. Comparative statistics for earlier years and similar totals for all manufacturing industries are also shown for SMSA's, counties, and cities with significant manufacturing activity. Data are shown by industry groups for SMSA's and larger counties and cities. Detailed statistics—including inventories, assets, rents, and cost of materials and energy—are presented only in statewide totals.

Subject series—16 reports (MC77-SR-1 to -16)

Each of the 16 reports contains detailed statistics for an individual subject, such as size of establishments; manufacturers' inventories; capital expenditures, fixed assets, and rental payments; selected materials consumed; selected metal working operations; manufacturing activity in government establishments; concentration ratios in manufacturing; type of organization; water use in manufacturing; fuels and electric energy consumed (individual publications for industries, States, and SMSA's); textile machinery in place; origin of exports for manufacturing establishments; analytical ratios for manufacturing industries; distribution of sales by class of customer; production indexes; and a general National-level summary.

Final Report Volumes

- Volume I. Summary and Subject Statistics—data previously issued in series MC77-SP.
- Volume II. Industry Statistics—data previously issued in series MC77-I.
  - Part 1. Major Groups 20 to 26.
  - Part 2. Major Groups 27 to 34.
  - Part 3. Major Groups 35 to 39.
- Volume III. Geographic Area Statistics—data previously issued in series MC77-A.
  - Part 1. Alabama to Montana.
  - Part 2. Nebraska to Wyoming.

Microfiche

All published data are also available on microfiche.

Computer Tapes

Public-use computer tapes contain most of the summary data that are found in the published reports. In addition to the published data being on computer tape, one major data series, the location of manufacturing plants, will be available only on computer tape. Public-use computer tapes are available for users who wish to summarize, rearrange, or process large amounts of data.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, mineral industries, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1977 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, and Guam. Separate announcements describing these reports are available free of charge from Customer Services Branch, Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

CONTENTS

Fiche/Frame

EXPLANATORY TEXT

Summary Data 1/A4
Industry Data 1/A11
Revisions to 1976 Coke and Breeze Data 1/A14
Conversion to British Thermal Units (BTU's) 1/A14
Fuels Excluded from Report 1/A14
1972 and 1977 Revisions to Standard Industrial Classification System. 1/A14
Census Disclosure Rules 1/A14

TABLES

1. Fuels and Electric Energy Used for Heat and Power: 1977 and Earlier Years. 1/B1
2. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power: 1977 and Selected Earlier Years. 1/B1
3. Quantity and Cost of Purchased Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1977 and 1976. . . . . 1/B2
4. Fuels and Electric Energy Used for Heat and Power by Industry Group and Industry: 1976 Revised 1/C6

APPENDIXES

A. Scope and Coverage 1/D2
B. Explanation of Terms. 1/D5
C. Report Form 1/D6

Publication Program. 1/D10